ANC

OTHER WORLDS

MARCH
1953
35¢

EDWARD E. SMITH, Ph. D. • GIBSON • de CAMP • PALMER

The People Who Make OTHER WORLDS

No. 11

EDWARD E. SMITH

BORN May 2, 1890; Sheboygan, Wisconsin. In December of the same year the family moved to Spokane, Washington, where we lived for about twelve years. I went to school through the sixth grade, sold newspapers, and so on—the routine life of a husky kid living on the wrong side of the tracks.

In 1902 we moved to a homestead on the Pend d' Oreille River, in northern Idaho. There, besides picking up (in rather sketchy fashion) three more years of schooling, I worked at clearing land, harvesting, hay-baling, ranching, and umpteen different jobs in lumbering; from swamping out logs in the woods clear through to planing finished lumber in the mills.

Deciding that I didn't like the woods, I let my older brother and sisters back me into a stiff collar and ship me to the prep school of the University of Idaho. From 1907 until 1914 I was either in school or earning money to go back. Mining, surveying, dozens of jobs in many lines —far too many to list here.

In 1914 I graduated in chemical engineering. First job offered was in food work in the Bureau of Chemistry, Washington, D. C. Took it, and started studying organic and food chemistry at George Washington University. Married Jeannie MacDougall, of Boise, Idaho (formerly of Glasgow, Scotland) on Oct. 5, 1915. Three children — and, as of 1952, eight grandchildren. Became a specialist in cereal technology.

Came the war. Wanted to fly a

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MARCH

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ART DIRECTOR

Malcolm H. Smith

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Robert Gibson Jones

Back Cover:
Hannes Bok

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....Editorial...

THE other day a young man came into our office and said he was a reader of OTHER WORLDS, and every time he read it, he wondered just how everything in the issue actually came to be in it. He wanted to see how things worked. Well, we explained to him as best we could, and we were continually being amazed that things we considered so prosaic and everyday-plain, seemed so interesting and wonderful to him. As we watched him, we got the idea that maybe all our readers would be interested in knowing just how the editors of OTHER WORLDS work, and how they get their material, their ideas, and how they sometimes make mistakes. So, for once this isn't going to be an editorial, but a sort of Cook's Tour. Bea Mahaffey and I are going to take you on a confidential revelation of the "inside" of OTHER WORLDS.

First, Bea works in an office, officially, but actually she can come and go as she pleases as long as she gets her work done. As for myself, you all know by now that I work on my farm, in an upstairs room, overlooking my own lake and a trout stream, and some of Wisconsin's best scenery. There are those who say neither of us can logically produce efficiently, because it's a sort of honor system, with no clocks to punch, no time records to keep, no production schedule to meet. How can you (some say to me) buckle down to work with that trout stream right out there under your nose? Well, if that trout stream beckons, I go! But do you know, OTHER WORLDS also beckons, and I come! When you are doing a work you love, you aren't easily persuaded to neglect it.

About every three weeks or so, I drive down to Evanston, to spend three days at the office, which time we spend planning, considering, interviewing, visiting, and just chewing the fat in general. I'll try to take you along on one of these trips. . . .

It's October, and the April issue is being planned. January is just about to come off the press, and February is being whipped into shape. Bea needs to discuss last minute items in the February issue, show me some new covers for future issues, explain why my latest story, written for the March cover, is no good and will have to be done over, and the method we'll pursue for the BIG April issue must be decided.

When I arrive, appointments have been made: a) with Malcolm Smith, the Art Director; b) with J. Allen St. John, the famous "Tarzan" artist, with Bill Hamling (of *Imagination*) so's I can ferret out his newest ideas and steal them from him—we

always try to steal Bill's ideas, because he values them so *highly!*—and give him bum steers on ours so he won't know what we're planning in competition; with a woman novelist who has just finished a new novel that Ray Palmer might like to publish in book form (sometimes I do); with the income-tax auditor (and eventually, with Alcatraz).

I generally arrive at noon, in time for lunch with Bea. This is always enjoyable. She waits to reject my latest story until after I've eaten; then she shoves it down my throat saying if I like tripe that well, it shouldn't be wasted. So you think I'm kidding? Okay, here's how it is at OTHER WORLDS: There are two editors, Bea and myself. If one of us doesn't like a story, or an illustration, or a cover, or a cartoon, or a letter—it doesn't go in! In plain words, it does an author no good to go to either one of us, thinking he'll bet a better chance to sell. He's got to sell us both!

When we arrive at Malcolm's office in the Loop, the answer is always the same—the latest cover isn't done yet, and he has nothing to show us but International Trucks, which pays him ten times what we pay him for an illustration that takes one-tenth the time to do. So, we pat him on the back, tell him not to worry, that we will go find another artist and another art director. Then we walk out. We tell him as a parting shot that when he gets as good as the artist we're now going to see, maybe we'll hire him back. Then we go over to see J. Allen St. John. And here's where we strike it rich. . . .

Most of the big things in an editor's life, and in a magazine's contents, are lucky strikes. You sort of fall into them. Later on you are called a brilliant editor. It isn't true. Luck is a big part of editing. It's like finding out you've got the winning ticket in the Derby. Well, that's what happens. We discover that St. John is just painting something "just for the fun of it." What is it? It is a painting of Tarzan, carrying Jane through the treetops in "Tarzan And The Golden Lion." It is a terrific painting. Bea and I look at each other, and suddenly the wheels go around. "Back cover!" she bursts out. "New series!" I bark back. "Whole new series called *Famous Characters In Science Fiction!*" "This is the first one!" she states. And so it is!

St. John, fascinated with the idea, is enthusiastic. "Next, John Carter and Dejah Thoris. And after that, Haggard's immortal *She!*" He knows lots more. . . . He brings out his best liquor, and we have one on the new series.

All enthused, I think of a novel I've long wanted to write. So. I'm going to write it! And St. John is going to illustrate it! We describe it to him—he gets out charcoal and begins to sketch rapidly. Soon a new front cover idea emerges. We are delighted. "Do it!" we both exclaim.

Finally, we get to look at the thing we came to see in the first place, the finished illustration for "Tedric," in this issue. We look at

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THE MACHINE THAT FLOATS

By Joe Gibson

What if you invented a space ship? Would you give it to the world? And what if you decide NOT to! Are you a criminal to be hunted down?

Illustrated by H. W. McCauley

BILL MORROW fished his cigarettes out, shook one loose, and poked it between his lips. He lighted it with hands that shook badly, he leaned back on the workbench and blew smoke in a long, heavy sigh.

His gaze remained fixed on the compact little chunk of glittering grids, coils, and metal loops that floated in the center of the room. Floated, by Isaac Newton—*floated!*

It worked. It worked beautifully! He'd merely inserted the four dry-cell flashlight batteries into their clamps and thumbed the switch on the little face-panel. The tiny pilot-light winked on, the needle jiggled on the single instrument dial—

And it worked. It had risen gently from the workbench, floating into the air. . . .

Then, seemingly, it had fostered a dislike for the workbench. It slid off and bounced toward the floor—bounced, up and down in the air, gently—and floated on across the cellar toward the oil furnace in the corner.

But as it approached the oil furnace, it had decided it didn't like that either—so it deflected its course and floated toward the concrete cellar wall.

But it didn't like the wall. So it reversed its course and retreated to the center of the room. There it hovered, four feet above the cement floor, four feet below the rafters of the cellar roof.

It hovered in mid-air.

Morrow stared at it, critically. He could capture it—get it between himself and the wall, and reach out and grab it before it could slip away—and touching it wouldn't harm him. The magneto-gravitic coils didn't need high voltage.

It was working on its lowest "volume" setting. The only word applicable was "volume" because he used an ordinary volume-control grid and knob to adjust its power—and, again, "power" was the only applicable word. He might have to invent a few new words for it.

But on its lowest volume setting, it was supporting its own weight—suspending itself in the Earth's gravitic field.

And since gravitic forces were also magnetic forces, he would weigh a fraction of a pound lighter when he grabbed hold of the mechanism—just he, himself, since he wore rubber-soled shoes. If he turned up its volume, it would exert greater influence on the molecular structure of itself and of his body—and perhaps of a few grains of dust on the cement floor beneath his feet—by simple mass-attraction and conductivity.

Of course, "mass-attraction" and "conductivity" were also obsolete terms—except that they described two different results of the same natural phenomenon. The floating mechanism affected the basic phenomenon itself—

And $\int \frac{K_i}{\lambda} = 0; \Gamma_{ik}^{i} = 0; R_{ik} = 0; \frac{\partial g^{ik}}{\partial x^{k}} = 0$ was the closest Einstein could come to explaining that!

Still, a word could be invented for it, Morrow supposed. Not that he

understood what the new word was supposed to define—but then, had Edison known what electricity was? No! He had merely experimented and learned what it would do, and then designed mechanisms which would utilize it.

Morrow didn't know what "gravity and magnetic moment" was, either —nor "angular momentum"—but he had discovered what it would do. *It*, not they—it was all the same thing. And he designed a mechanism. And the mechanism worked.

It defied "gravity."

With its volume turned up, it could very probably lift him to any height above the Earth he desired, with its ability growing weaker only as it rose out of the Earth's gravity and magnetic field. And it would keep him suspended, if he desired, until its batteries burned out.

There would be limitations, of course. Perhaps the Earth's gravity and magnetic fields would be too weak at, say, an altitude of fifty miles for the mechanism to function. There were probably limits to the mass and weight it could lift. There would have to be extensive tests—

And a cellar workshop was no place to conduct them!

HE straightened up from the workbench and moved forward on the balls of his feet. He spread his arms wide as he approached the mechanism, like a basketball player approaching a wary opponent who had the ball. Smoke from the cigarette dangling out of the corner of his mouth streamed up and stung his eye. He wished he had left it back on the workbench.

At first, the little mechanism ignored him. Then, almost instinctively, it seemed to notice him. It went sliding away from him, toward the wall.

Morrow moved forward, cautiously.

It glided close to the wall, then rebounded gently. It came drifting back toward him—then hesitated, started off in a tangent—and he grabbed for it. A faint, tingling shock went up his arm as he clawed at the shiny metal loops, but that was all. He hung on grimly as it tugged at his fingertips; then, as its influence swept through him and attuned his body to it, it snuggled up to him, suddenly friendly.

He snapped it off and felt its inert weight settle down familiarly in his hands. He carried it back to the workbench, set it down, and threw a rag over it.

Then he pulled off his coveralls, went upstairs to the kitchenette, and washed his hands.

There were other factors to consider, of course. Especially the ones he didn't want to think about—the frightening ones—

He stared down at his hands, feeling the cool water run pleasantly over them. Strong, supple hands. Well-proportioned, muscular. A little bit like the rest of him. Not fat or skinny; not soft-muscled nor, again, as bulgingly muscular as a wrestler. Just firm flesh, strong and not too

much of it, on a strong-boned skeleton frame. Nerves well-coordinated, reflexes good. But tired. Mentally fatigued, the psycho-therapists said, from living in a world of raw tensions. According to them, ninety percent of the American public suffered mental fatigue. There had been a slew of magazine articles and several books about it.

The Cold War, the war that wasn't a war. The Russkies.

Morrow turned off the cold-water tap and glanced at his image in the shaving mirror. A slender face, a good nose, a firm mouth with slightly too much jaw. Dark hair tumbled in comfortable looseness over a lined forehead. Gray eyes that mocked him as he mocked himself.

He dried his hands and got a couple of cans of beer out of the refrigerator. Grabbing a can-opener and a glass, he strolled in through the small, dark bedroom to the front living room and sprawled himself out in the deep chair beside the television set. It was a small home, a comfortable home, and he enjoyed prowling around in it in his socks, loafers, and shorts. He scratched his left leg and opened a can of beer.

He was, Morrow concluded, the product of an age of terror. East was Russia and west was the Allied Nations, and in between was a veritable No Man's Land. Radar blanketed the skies, rocket missiles stood on their firing-racks, long-range bombers waited to deliver atomic death and swift jet-fighters waited to do battle with them. The diplomats called it a balance of power; the military strategists, a balance of forces, wherein neither side could launch an atomic war without suffering complete annihilation by the other.

And so, said the statesmen, there would be no atomic war.

The only trouble was, they couldn't convince the people. Too many self-minded individuals saw the world situation as to sticks of dynamite rubbing against each other. At any moment, both might explode. Massive war industry and compulsory military training for their youngsters didn't make the public feel any more secure.

Nor, of course, did the generals want them to feel secure. The Allied generals moved their armies in threatening maneuvers near critical borders to increase the fear of the peoples in communist-dominated countries; the Russian generals did likewise to increase the fear of people in the Allied Nations. And the diplomats hurled threats back and forth in the United Nations' assemblies to achieve the same purpose.

Militarily, the two sides had reached a stalemate. The final weapon was the people. Each side hoped the people of the other side would rise up in revolt, thus breaking the deadlock and winning the struggle, but humanity is notoriously stubborn. It was, nonetheless, rather hard on the people.

Individual lives were deeply affected, sometimes for better and sometimes for worse.

Morrow's life had, so far, been for the better. In high school, certain aptitude tests had placed him in advance physics classes; upon graduation, at seventeen, he had spent a year in a government-sponsored engineering school. At eighteen, further tests had placed him in the Air Force, assigned as radar-operator to the rear cockpit of a sleek, all-weather jet-fighter. He spent two years patrolling the stratosphere over the vast, white expanse of the Arctic Ocean. At twenty, he was reassigned to engineering school and spent four years studying electronics, during which time he was returned to civilian status. He was placed at Western Electronics as a production engineer; by the time he was twenty-seven, he had worked his way up to the Research Division. His flying experience helped considerably, but it wasn't all. He was deeply in love with electronics. He had studied Einstein's equations, for example, and got something out of them that most of the others missed. No one knew exactly what it was—neither did Morrow—but he began to have "hunches" that often paid off.

In electronics, that was a priceless faculty. A great deal of it, especially in the research department, was still pretty much of a hit-or-miss affair. There still wasn't a man who knew *exactly* what electricity was!

Now, at twenty-nine, he had gotten another of those "hunches." It worked, too! The machine floated!

HE gazed thoughtfully out the broad picture window at the stretch of green lawn, the sidewalks, the trees along the street and the other little prefab houses of his neighbors. The evening shadows were cool and deepening as night approached. Warm, yellow light poured from the windows across the street.

He was comfortable here in his little, company-owned bachelor's home. Most of the town of Westerton was owned by Western Electronics, with its huge, sprawling plant buildings on the other side of the small valley, across the railroad tracks. Like most of the bachelor engineers, he ate most of his meals over at the company cafeteria. A cleaning-woman came twice a week to tidy up his little house, though he was a fairly conscientious housekeeper himself.

And like practically all the engineers, he had a small workshop patched together in his cellar, built from odds and ends salvaged from the company's junk-pile of rejected parts, a few pieces scrounged from the laboratories, and some odd bits made in the machine-shop over the protests of its foreman. There were nine amateur radio-hams sharing the wave-bands in Westerton and vicinity, and no office-clerk's housewife ever had any difficulty getting a recalcitrant dishwasher or electric iron fixed.

It was here, in his private workshop, that he had developed his "hunch" to startling reality. Work-

ing in his spare time, figuring out its mathematical components, then working those components into theoretical diagrams, then designing and building the machine to fit the diagrams—and it worked!

Also, it was fantastic. It had been a little too fantastic for him to mention it to any of the others at the labs. His fellow-engineers—some of whom were considerably older than he was—were a little too staid for that. They, too, were products of the age; their entire efforts and, indeed, most of their interests were tied up in the one, basic problem of making better electronic devices for better weapons for the Armed Forces. They couldn't be blamed for that, the world situation being what it was, but it did make them somewhat hidebound.

The idea of controlling the pull of gravity was a little too fanciful for them, Morrow feared—or if they had any interest in the idea at all, it would be in the possible uses of it as a military weapon. That was the way to get ahead as a scientist, these days!

Morrow shuddered involuntarily.

There was the thing he actually feared!

He drew it into his thoughts, slowly, and analyed it. Item: he had discovered a means of controlling gravity. Item: he had developed a mechanism which worked on that principle. Addenda: the mechanism could lift a human being, quite possibly as much mass as a heavy tank, and it might even open the way to interplanetary travel.

Quite obviously, it had terrific potentialities as a weapon of war.

And it was his patriotic duty, as a citizen of the United States, to turn his discovery over to the authorities.

Well, suppose he did? It would come as an even greater shock than was the development of the atomic bomb—of that, he was sure. It would become a top-secret project. Gradually, each individual unit of the entire Armed Forces would be made airborne. The Infantry would take to the skies, supported by airborne artillery and tanks; the Air Force and Navy would combine to send giant battleships gliding through the stratosphere, unhindered by any shoreline and capable of both artillery fire and aerial bombardment.

How could anything as big as that be kept secret? The answer was, it couldn't. Such a program would hardly have begun when some Russian agent handed the entire secret over to his bosses in the Kremlin. Then Russia would launch the same sort of program.

And world tension was already terrific. Mankind was already teetering on the brink of atomic war. What psychological effect would this new threat have on them? What insults would the diplomats think of, then? What charges and counter-charges would hurl between them? What final "incident" would spark the entire civilization into a raging holocaust?

Or would the officials in Washington realize that outcome? Would they order his discovery destroyed, for-

gotten, and himself assigned to some well-guarded hunting lodge in the Canadian Northwest where he could be kept in comfortable isolation, with no one around to pluck the dreadful secret from his mind?

The present balance of power had at least some promise of averting an atomic war. His discovery would destroy that balance of power, and do it suddenly, frighteningly. Someone might get just scared enough to start shooting. After that, there'd be no turning back. There would be atomic war.

They probably wouldn't want their balance of power destroyed. At least, not *that* way.

Well, then, why shouldn't he save them—and himself—a lot of trouble and simply destroy the thing himself? Forget about it, forget he'd ever thought of it?

That wasn't so good, either.

Personally, he was deeply anxious to begin the tests on the mechanism. There was so little he knew, actually, about what its limitations were, how they could be surmounted—

But there was more to it than that.

The mechanism did work, and it would lift considerable weight. Therefore, it would certainly have its uses.

Air travel could be made perfectly safe. That fact prompted a vision into his mind of everybody flying around in little, teardrop plexiglass shells, landing on their roofs—and living in homes scattered over a peaceful countryside. Cities could be smaller, devoted exclusively to office-buildings and industrial plants, and would suffer less congestion.

Also, people would become accustomed to travelling greater distances. A thousand miles might be a comfortable afternoon's ride. This, in turn, would mean greater travelling and exchange between various nations.

Then, there was the fact that commercial shipping would be revolutionized. Transporting air cargoes would be cheap and dependable, even for the heaviest kinds of freight. Thus, factories could be built near their power or raw material sources. They wouldn't have to be built near large railroad centers or harbors; commercial shipping would no longer be a problem. And thus, industrial areas could spread out, become less congested, have better surroundings for employee-morale and pay less property taxes.

Also, they would be able to ship their products to more distant markets. International trade would increase tremendously. The world-wide competition would shatter unfair national cartels—that would take time, and many governments would fight it, but eventually they'd have to accept it or intensive smuggling would undermine their economy. In times of economic stress, black markets were often a blessing to backward, underdeveloped areas.

The whole result of it would be that the entire world would be bound together far more closely. Economic ties would be predominantly international. The increased flow of

travellers between nations would gradually break down prejudices and differences of custom and misunderstanding.

And that would create a far stronger basis for tomorrow's world government. As civilization stood, it needed a world government desperately. Either that, or atomic energy would destroy it. Either world government or war.

So there it is! Morrow concluded.

He had a mechanism for controlling the pull of gravity.

Either that mechanism was destroyed and forgotten, or the world's present balance of power would be destroyed and humanity plunged into atomic war.

But if the mechanism was destroyed, humanity wouldn't have it for the future development of world government and civilization. And they needed it. The present automobiles, trains, and aircraft were all very streamlined and marvelous when compared to the horse and buggy, but they were still too limited, too cumbersome and too costly. There had to be something for the average man, earning the average salary, that would haul him—and extend his interests—to the far corners of the world.

The mechanism would do that.

Mankind would need it to develop a sound, productive future.

But if it wasn't destroyed, there would be atomic war. There wouldn't be any future!

IT was after midnight when he rose from his chair, pulled on a pair of slacks and a sweater, and left the house. He locked the front door and walked around to the garage. Swinging the door back, he felt his way into the darkness, touched the familiar surfaces of his little motorbike, and rolled it out to the driveway. Mounting, he kicked the starter, and the little one-cylinder, 15 horsepower engine exploded into a throaty chatter.

He rode down the dark, tree-lined streets, the cool air whipping over his body. Swinging into Railroad Avenue, he pulled over to the curb and stopped before the lighted windows of the telegraph office. He strode in, scribbled off a telegram, and paid for it.

The office girl, counting the words, stopped and frowned. She shoved it back across the counter to him. "Does that make sense?" she asked dubiously.

Morrow glanced over it again and smiled. It read:

WESTERTON, NEW JERSEY
August 6, 1960

D. P. SMITH
ACME CROP DUSTERS INC.
DENVER, COLORADO
SCRAMBLE WESTERTON. WIRE E-T-A. MAY DAY.
BILL MORROW

He shoved it back to her. "It makes sense, all right. And I'm expecting a quick reply, so I'll be waiting across the street in Switzer's Cafe."

"It may take some time—"

"That reply will come as quickly as you people can handle it," Morrow retorted. "A crop-dusting pilot is accustomed to getting telegrams in the middle of the night—and answering them, before some other outfit can grab the job being offered!"

The girl shrugged her thin shoulders. "All right, then. You'll be over at Switzer's—"

"Right."

She scribbled a note on a memo pad. Morrow turned and strode out.

A feeling of elation tingled through him as he crossed the street. Calling on D.P. Smith had been a natural reaction, once the plan had begun forming in his mind. If he'd ever wanted anyone murdered, Smitty was the one man he could trust!

But there was a more immediate cause for elation. It was after midnight, and Gwyn went on shift at Switzer's Cafe at midnight. She'd been on the dawn patrol for the past week, and the only time he'd seen her was when he dropped in for a quick breakfast coffee every morning.

Gwyn Davidson was the only daughter of old Pat Davidson, the plant superintendent at Western Electronics. Bill had worked under Pat as a production engineer; he'd met Gwyn two months earlier when she returned home from college. Gwyn's mother had died the year before from cancer, after a lifetime of suffering and hospital bills. Old Pat was still paying off those bills, and Gwyn had been working her own way through school. Now, she was a waitress with an M.A. degree, helping out with the expenses at home.

He saw her through the front window, leaning on the counter in the deserted cafe, reading the comics in a newspaper. She was a small, curvaceous girl in a blue waitress' uniform carefully chosen to fit to her best advantage. Soft, dark hair tumbled back from a tanned, healthy face that sported only a trace of lipstick.

Her wide, steady gaze flicked up as he strode in, then she smiled warmly. "Hi, Bill. What're you doing up at this ungodly hour?" Pretty, firm-fleshed, and bouncy.

Even though her feet are killing her! Bill thought. "Hello, Gwyn," he said. "I came down to send a telegram. Pour me some coffee, huh?" He straddled a stool before her.

"I'll give you what we serve as coffee," she answered brightly, "but you'll have to pay for it!"

"Fair warning. How's tricks?"

"Haven't seen her lately. What's with this telegram all of a sudden?" She grabbed cup and saucer, turned, and drew a cupful from the chrome coffee-maker.

"Invitation to an old friend," Bill replied half-truthfully. "All of a sudden, I'm lonesome."

She swung back and slid the coffee before him. Her eyes were teasing. "Wouldn't a wife do just as well?"

"A good question," he quipped back. "Come sit down and have coffee with me, and we'll talk it over!"

"What?" She grinned brightly, wide-eyed. "Don't go 'way, now!"

She whirled, grabbed a cup and saucer, and filled it. "I'll be right there"! She moved briskly around the end of the counter and perched herself on the stool beside him. "Now! Tell me more!" She began ladling spoonfulls of sugar into her coffee.

It was a good comedy act, done with a natural flair for perfect timing. Morrow leaned weakly on the counter, laughing silently.

Gwyn gave him a glare of feigned contempt. "Oh! Just another fast-talker, huh? I might have known!" She stirred her coffee furiously. "You engineers are all alike. If father warned me once—"

"Don't overdo it, honey," he cautioned her, lightly. "You know perfectly well I've enjoyed those long goodnight kisses when I've walked you home."

She sobered reflectively. "All right, Bill. But just what was this mid-morning telegram about—or don't you want to tell me?"

It was a casually-spoken question, and the circumstances made it a perfectly logical one. As a research engineer, Morrow worked on a number of things which had top-secret classification, and Gwyn knew he did.

And I'd better classify this, too! Morrow thought slyly.

"Afraid I can't," he answered her, calmly.

She nodded and sipped her coffee in silence. Finally, she asked, "Will you be glad when I'm back on a day-shift?"

Morrow took his turn sipping coffee and took his time forming an answer. "I want to take you swimming out at the Lakeshore Lodge, again," he said. "I still dream about the way you rolled up your two-piece suit so it was a Bikini model—"

"Uh huh," she interrupted. Her tone was hardly enthusiastic. "If we do, you'd better not try making the passes at me you did the last time!"

"You expect me to resist the temptation of all that beautiful skin?" he retorted, grinning down at her.

She gave a pert shake of her head. "When I give in to a man, he'll be my husband," she said firmly. "And he'll be my husband because he loves me—not because he drools over my body!"

"Ummm," Morrow ummed, doubtfully. He decided it would be best to change the subject. "Read the latest *Universe?*"

"Uh huh! What'd you think of Sturgeon's story?" She was at once bright, smiling, interested. "Wasn't it wonderful? I mean, the way he so perfectly defined an alien being's intelligence—"

THAT was science-fiction. Gwyn read the science-fiction magazines avidly, from cover to cover. Morrow read a few, along with his other reading—the *Post*, *Harper's*, the *Digest*, and half a dozen technical journals—and he'd even written and sold a science-fiction story once. Nineteen editors rejected it, but the twentieth bought it after having him revise it three times.

But that one mutual interest had gone a long way in winning his es-

teem in Gwyn's mind, slight though it was. And she was cute as a bug, the sort of female who set a man's blood a-tingle.

So they talked science-fiction. Alien creatures that inhabited other planets, trips across space and out to the other stars, travels through time and into other dimensions, civiliations which spread clear across the galaxy . . .

It was over an hour before a young messenger boy came in with the expected telegram. Morrow tipped the boy, excused himself to Gwyn, and ripped open the envelope.

The message read:

DENVER, COLORADO
AUGUST 6 1960

BILL MORROW
WESTERTON, NEW JERSEY
ROGER, WILCO. E-T-A NEWARK AIRPORT 3:10 A.M. SUNDAY AUG. 8TH. WHERE IN HELL IS WESTERTON?

D.P. SMITH

Grinning, Morrow folded the yellow sheet and stuffed it into his pocket.

"Everything okay?" Gwyn asked, forcing all concern from her voice.

"Everything is okay," Morrow affirmed quietly. "How much do I owe you?"

"Four coffees? Forty-five cents."

He laid the change on the counter, then stooped and kissed her cheek lightly. "I gotta go home and get some sleep," he murmured.

She smiled, a little wistfully. "Thanks for coming."

He went out into the cool darkness, then hurried down to the bar on the corner and went in to use the men's room. Then he came out, crossed the street, and climbed aboard his little motor-bike.

Thoughts drifted lazily through his mind as he chugged contentedly homeward. . . .

THOUGHTS — and memories. They were cruising along peacefully at 40,000 feet. Morrow felt as if he were molded into the snug rear cockpit, an integral part of the tons of sleek, deadly metal that was the old F-94 jet fighter. But he'd experienced that feeling so often it no longer mattered, then.

Before him was the familiar maze of instrument dials and signal lights and switches crammed around a glowing, green-blotched radar scope. Around him was the clear, transparent canopy, with the round crash-helmet of Smitty's head poking up from the front cockpit ahead of him. Below, off the edge of the razor-thin wing, was the criss-crossed gray surface of the Arctic ice-pack. The sky was an intense blue-black sprinkled with the hard, bright sparks of stars.

There were faint, rythmic sounds around him. Familiar sounds. The warm, dry air blowing through his flight suit, circulating over his body. The air pushing into his face-mask. The rolling motion of the seat-cushions, massaging his backside with mechanical dispassion.

Then the flat, metallic voice in his

earphones. *"Forty-three degrees left. Contact in five minutes!"*

"Roger!" Smitty's voice answered.

The ship tilted gently. Centrifugal force pressed Morrow against his seat. The world turned slowly beneath them. Forty-three degrees.

Two minutes later, a bright spark appeared on his radar scope. *"Air spotted!"* he spoke into his mike. *"Two degrees right!"*

"Over to you!" the metallic voice from ground radar answered. And the jet shifted slightly. Two degrees.

"Contact in two minutes," Morrow chanted. *"One-thirty. . .One. . .Thirty—"*

"Contact!" Smitty's voice cracked.

The F-94 whipped over into a turn. The force of two gravities shoved Morrow down in his seat.

For a brief moment—a breathless, eternal moment, all of two seconds—another F-94 exactly like theirs appeared directly before them. Long enough for red lights to glow and camera guns to record a direct hit. The practice mission was completed—almost.

Then Smitty snap-rolled the ship, missing the other ship almost by inches. The g's piled up, cramming Morrow down in his seat, pulling at his facial muscles. Then his vision cleared and he straightened up, bruised and somewhat battered.

It was the old bomber-interceptor game. That other F-94 could have been an enemy bomber, plowing toward American cities with a load of atomic death—

Smitty turned his head and looked back. His eyes crinkled into a smile under the green glaze of his goggles.

Smitty. Captain Daniel Purcell Smith, then—or "D.P." Smith, which were also the initials for "Displaced Person." A cool, thoughtful, and smart jet-fighter pilot in those days, and a darned good guy. They had taken Seattle apart at the seams on their one furlough, preferring the devilment of their own companionship to going home to Mom's apple pie.

Morrow's telegram had made sense, all right. The words *scramble* and *May Day* were fighter-lingo; *scramble* meant *let's go! we've a fight on our hands,* and *May Day* meant *I'm in trouble!*

He was in trouble, certainly. The mechanism he'd developed was, in itself, plenty of trouble.

And it was a special kind of trouble—the kind in which the only person he could dare trust had to be someone like Smitty. The Air Force camaraderie which existed between them had never quite faded out. Even after they'd been mustered back into civilian status, after Morrow had signed a government engineering contract and Smitty had gone on to commercial flying, they had kept in touch with each other. Diverging interests hadn't pulled them apart; the old school ties, the old trustworthiness was still there. An odd letter every few months or so, a postcard at Christmas . . .

He was fortunate to know a man like Smitty, Morrow knew. He couldn't have carried out his plan

alone.

He reached home, stored his motor-bike in the garage, and walked into the living room. He snapped on the light and stood there for a moment, gazing across the room at his littered writing desk. If he were going to carry out his plan, there was one thing he'd have to do himself. People weren't going to like it. Good engineers were scarce.

He walked across the room, sat down at the desk, and crammed a sheet of Western Electronics stationery into his portable typewriter. He paused, lighted a cigarette, and then grimly proceeded to write his letter of resignation.

"IT'S a mechanism that floats in the Earth's field of gravity," Morrow began—

They were seated in a secluded booth in the modernistic restaurant at the Newark Airport. Through the wall-length observation window, they could look down on the airfield; a giant stratoliner was rolling up before the building, the bright spotlights glistening off the silvery arcs of its six big turbo-props. White-uniformed linemen were pushing the steps up to the side of its fat hull as the door slid open and a pert stewardess poked her head out. Beyond the gleaming sky-monster, in the pitch darkness of early morning, the runway lights twinkled in rows and patterns of red, yellow, blue and green sparks.

Morrow spoke quietly and succinctly, pausing only for a sip of coffee or a pull on his cigarette, and gave a concise briefing of his discovery and its implications. The dishes of an early breakfast had been cleared away, so no waitress bothered them and the few other patrons in the restaurant were out of earshot.

Across from him, ex-Captain D.P. Smith sprawled laconically on the cushioned seat, listening. The expression on his lean, brown face was thoughtful, intent. He sipped his coffee and flicked the ashes of his cigarette into the saucer.

He was a small, slender man dressed in a conservative, pin-stripe business suit. There was nothing dare-devil about his attitude, nor were his movements deft or quick. He was slow, cautious; his attitude was a reserved calmness.

It was immediately noticable. His carefully groomed black hair and his small, black mustache gave his features a mischievous look. There was something satanic about his small stature, his long hands, and his lean, handsome appearance. One would expect a bright, hand-painted tie and a roving, speculative eye. His utter calmness and reserve seemed incongruous.

Only the faint, white scar along his jawline might have indicated a devil-may-care experience. Morrow had mentioned it, remembering that Smitty had written about the crash last year—he was making a pass over a field, spreading bug-killer spray over a farmer's potato crop, when a sudden down-draft caught his plane

and he couldn't pull up in time to avoid the neighboring orchard. He'd crashed through the apple trees, snapping them like kindling. The plane was completely demolished.

When I woke up, he'd written, *they had me spread out on a silver tray with an apple in my mouth!*

Crop-dusting was a hard, dangerous job. The pilots did most of their flying before dawn or in early afternoon, when the air was calm; but they had to fly at other times, too, to make enough to meet expenses. They'd take off in small, worn-out planes, loaded beyond safety flight limits with bug-killer, and fly to some farmer's fields. Then they'd make passes back and forth over the fields, flying below-treetop, leap-frogging barbed-wire fences, zooming under telephone lines, and dodging trees and farm buildings, their eyes stinging as the spray billowed back into the cockpit.

The pay they received was small, mostly because there were so many skilled pilots looking for work and so few civilian flying jobs. Smitty could easily reenlist in the Air Force, of course, but they wouldn't give him a flying job; at thirty-two, he was too old for military flying. They took the eighteen-year-olds for that. And Smitty wouldn't reenlist to sit behind a desk.

So he dusted crops. It was no job for a dare-devil, either. A pilot had to know his limitations, the limitations of his plane, and what he was doing every second.

"——AND that's the situation," Morrow concluded. "If the mechanism isn't destroyed, it'll plunge the world into atomic war. If it is destroyed, it'll be lost to mankind for the next several hundred years—until somebody else stumbles across it."

"In short," Smitty resumed, "if we got it now, we have atomic war. If we don't have it for the next few centuries, we *will* have atomic war."

"I'm afraid so," Morrow affirmed. "Unless they manage to develop a world civilization and government without it."

Smitty shook his head. "They need something like this gravity machine to pull people closer together, to get them to know more about one another. Otherwise, any world government scheme is likely to be a fizz—unless it's established by force!"

"That'd amount to world dictatorship."

Smitty shrugged. "All right, so we've got this thing. If we keep it, we get atomic war. If we don't, maybe our grand-children get atomic war. That it?"

Morrow nodded.

"So you must have some plan up your sleeve!" Smitty grinned at him, shrewdly. "You wouldn't drag me all the way up here just to listen to a hard-luck story."

Morrow's eyes narrowed. "Smitty, the only reason this would cause an atomic war now is because the world situation is so tense—"

"True!"

"—But the world situation isn't

always going to be this way! Sooner or later, something will happen to change it. Something's bound to change it! This is a modern, fast-moving world—things happen fast!"

"So?" Smitty raised his brows, querilously.

"Well, it's bound to change within our lifetime! And when it does, we may have an opportunity to reveal this discovery. All we have to do is wait, keep it secret, test it and develop it, and turn it loose when the time is ripe!"

"Un huh," Smitty grunted. "And who's going to pay for it?"

"I've got seven thousand in the bank—"

"And I've got three!" Smitty frowned scornfully. "How far do you think we'd get on ten thousand bucks, chum?"

"As far as we'll need to get," Morrow retorted. "We aren't trying to finance a mass-production scheme, remember. This is strictly experimental work."

"What would the retail cost amount to on that mechanism you built?" he asked dubiously.

Morrow scratched his jaw, reflectively. "Retail cost it'd run to around three hundred dollars."

"So we make a bunch of those mechanisms. Now, what do we test 'em for?"

"For their use as a means of air transportation," Morrow answered. "Primarily, that is—there are probably a good many other possibilities."

"So how do we test 'em?" Smitty persisted. "How do you test any flight mechanism? You take it up in a plane, turn it on, and see how it works! So for thorough tests, including high-altitude performance, we'll need a plane with a pressurized cabin, big enough to hold our test equipment and the mechanisms. At the present market rates, you won't buy a plane like that for much less than fifteen thousand dollars!"

Morrow was shaking his head, patiently. "We can't do it that way," he said. "But we can afford the cheap plastic materials they're using in small private planes, now, and build a ship especially for the mechanisms. Then we can test it for low-altitude performance and, if it works, gradually extend our tests on up to eight or ten thousand feet—"

"And if the mechanisms fail, we crash! That'd be sheer suicide—"

"Not necessarily. If they work at low altitude, they'll be dependable in saving us from a crash. And we can install a main and auxiliary system of mechanisms, so if one fails we can cut in another."

Smitty paused, thinking it over. He gave a slow, grudging nod. "It might work, at that. It just might. But you realize what sort of predicament this will put us in, don't you?"

"Such as what?" Morrow prompted cautiously.

"Such as supposing somebody finds out about it," Smitty replied. "Most people have a pretty strong feeling about patriotism these days. We have something that qualifies as a good secret weapon. They aren't going to

like the way we neglect to inform the government about it."

"Uh huh. Men have been lynched for less," Morrow agreed. "We'll just have to see to it that nobody does find out about it. We can start out small, in almost any place that's relatively isolated—a deserted farmhouse would do, I suppose—and build our ship. Then we'd have to make our flights at night, until we're fairly sure of the ship. After that, we could set out to find a permanent base—one hidden off somewhere in the desert or mountains, where nobody will notice us. Then we'll fly our equipment out there and set up shop."

"What about power? If we set up near a power line, there'll be the company line-men coming around."

"I think a gas-engine generator will suffice," Morrow refuted. "We can haul gas to our deserted farmhouse by car, then fly it out to our shop at night."

"What if somebody asks questions when we buy or lease this land, 'way off in the middle of nowhere?"

Morrow grinned. "If it's 'off in the middle of nowhere,' why should we buy it? Nobody'll know we're there!" He finished the last of his coffee and shoved his cup aside. "You've been flying over the Southwest for quite some time, Smitty. I'm hoping you can find the sort of isolated spot we'll need."

"There are places in that desert country where no white man's ever walked," Smitty confirmed. "They're still finding old Indian ruins nobody knew existed. But you know we could get arrested for all this, don't you?"

"Umm," Morrow ummed. "Building an experimental aircraft without authorization *is* unlawful, isn't it!"

"It's a federal offense!" Smitty exclaimed tersely. "Also, flying without a license is a federal offense—and you don't have one. And using government land without permission is a federal offense. And you'll have to quit your job with Western Electronics, won't you? What about your government contract?"

"I've given them two-weeks' notice," Morrow explained. "I'm allowed that. Of course, engineers are scarce—so scarce that by quitting my job here for no good reason, I'm getting myself blackballed out of every other company in the industry. None of 'em will hire me after that."

Smitty frowned concernedly. "Did you have to do it that way? I mean—suppose you just disappeared?"

Morrow shook his head. "There'd be federal investigators swarming around here three-deep!" he said. "I repeat, chum—engineers are scarce! And they don't like strange things happening to engineers who've been working on top-secret material. They catch more enemy agents that way."

"You sure they won't investigate you for quitting?" Smitty's gaze was thoughtful.

"I don't think so. In the next two weeks, I think I can convince them that I've simply turned out to be a stinker." Morrow grinned sourly. "They'll be glad to get rid of me, then."

"So you'll be ready to leave in two weeks." Smitty's tone was noncommittal. "Then I'd better hop the next plane out this morning and start hunting up our base of operations."

"Don't you want to come out to Westerton and see the mechanism?"

"Uh-uh! Less we do to arouse suspicion, the better. I'll wire you, of course, when I find something. Have you got a gun?"

"Gun?" Morrow started. "No. Why should I?"

"Good." Smitty grinned lazily. "Don't carry one. They're too damned dangerous."

"I agree," Morrow said quietly. "It hadn't even occurred to me."

THE train rattled and squealed through the hot summer afternoon, dust and foul-smelling smoke drifting back through the open coach windows. Morrow huddled in the corner of his seat and stared miserably out at the moving landscape.

Have you got a gun? The words echoed through his mind. Of course he didn't have a gun. He had never thought about it. Why should he need a gun?

But the answer was obvious. The secret of the gravity-control mechanism was precious.

Certain individuals, should they learn about it, would stop at nothing to get it. Including murder.

And if the government learned about it, they'd dump him into prison and throw the key away!

Thus, anyone who happened to find out about it would do one of two things—try to steal it or inform the authorities about it. Either one would mean catastrophe.

And there was only one sure way to keep anyone's mouth shut. Kill them!

Morrow knew he couldn't do that—he didn't have that sort of mentality. Nor could he stand by and let anyone else do it, not even Smitty.

But that was what Smitty had meant: he wouldn't stand by and let it happen, either.

Besides, any murder would bring on an investigation. They couldn't hide from that. So it boiled down to the simple fact that if anyone found out what they were doing, they'd be finished. Dead men don't talk, but they get a lot of other people curious.

Somehow, they had to keep it secret. They couldn't afford to let anyone find out about it.

And that could be disastrous. There had to be some alternative choice, in case anything like that should happen. There had to be an out. Without one, they'd be trapped.

They had to admit that some day, somehow, it *would* happen. Someone *would* find them out. And they had to be prepared to handle it. It would have to be handled in some way that didn't involve murder.

What other way *was* there?

There had to be some other way. *Had* to. Morrow chewed down his fingernails as the train lurched and rattled onward. . . .

They pulled into Westerton with a hissing roar of steam and jolted to a stop beside the station. Morrow

climbed down from the coach, wearily, and strode through the station to the street. It was late afternoon, but it was still hot. He pulled off his tie, stuffed it into his coat pocket, and unfastened his collar. Then he pulled off his coat, threw it over his shoulder, and rolled up his sleeves. That was better. Now for a bite to eat.

He strolled down the shady side of Railroad Avenue toward Switzer's Cafe.

Beyond the law! his footsteps rang on the sidewalk. *Beyond the law, beyond the law—*

Suppose someone did find them out? They could ask no one to protect their interests. There'd be no help from the authorities. They'd have to protect themselves—against anyone and everyone! How could they do that without guns, without the possibility of killing someone? They couldn't accept defeat that easily. The secret was too important to the future of mankind!

But what could they *do?*

Beyond the law! Beyond the law—

"Bill! Hey, wait up!"

MORROW stopped as if someone had jerked him back on a string. He whirled toward the sound of the voice before his mind had recognized it.

Gwyn came trotting down the street toward him, swinging a tennis racket in her hand. She was dressed in a white, short-skirted tennis suit. She stopped beside him, breathlessly, and put her arm through his. "Where you going?"

"Switzer's," he said. "Join me in a sandwich?"

"Okay." They strolled onward. Her skirt rippled over her smooth thighs, accentuating her tanned, slender legs. "I go on the four o'clock shift tomorrow. Want to come down at midnight and walk me home?"

"At *midnight?*" he taunted.

"Sure! It's the witching hour!" She wrinkled her nose up at him, teasingly. "What're you all dressed up in your suit for? Going somewhere?"

"Had to go to Newark today," he said. "To meet someone."

"Oh! Don't they even let you alone on Sundays?"

"Sometimes, honey." He grinned. "When are you going swimming with me again?"

"Well, if you want to *swim*—" She broke off and gazed up at him with mocking cynicism. Suddenly, her gaze went past him and she tugged at his arm. "Oh! Wait a second."

She guided him into the little newsstand and left him by the cigar counter, going on over to the magazine racks. Morrow stood back and admired her firm, shapely posterior.

"Ah!" she exclaimed, pulling out a magazine. She fished some change from the little purse on her belt and passed it to the newsstand operator. "Okay, let's go."

"What've you got there?" Morrow asked.

"You can see it after I have," she retorted. "Why don't you buy one

yourself, for a change?"

She flipped through the magazine's pages as they walked along. Morrow took her elbow, guided her around a telephone pole, and maintained a discreet silence.

As they seated themselves in a booth, Gwyn closed the magazine and slid it across to him. Smiling, Morrow glanced down at it—then stiffened, staring at the cover illustration.

It was no more than a typical science-fiction cover. The setting was a typical street scene at night—some dark side-street in the metropolitan section of some city like New York. In the foreground stood a young man. . . .

But from there on, it was nothing ordinary. The young man was slumped back against the wall of a building as if he were trying to mold himself right into it. The expression on his face was one of mixed surprise, incredulity, and fear. It showed plainly that he knew no one else would believe him if he told what he was seeing; and furthermore, he didn't believe it himself.

In the background, farther up the street, a group of people were emerging from a doorway. A beautiful girl was in the lead, and behind her came creatures that looked like men with blue skins, except that they had tentacles instead of arms. The light of a street lamp revealed the skin-tight garments they were wearing, and the octopus-armed men had transparent helmets over their hairless heads. The girl wore a helmet that was thrown back.

And before them was a tall, gleaming rocket ship, standing on its tail-fins in the middle of the street!

And the young onlooker *didn't believe it!*

"She *is* pretty, isn't she!" Gwyn's acid tones cut through his thoughts.

Morrow noticed, then, that the cover-girl's costume was not only skin-tight, but there wasn't much of it. He grinned wordlessly, then thumbed through the rest of the magazine. Its pages hardly registered on his mind. He was beginning to form an idea. . . .

BY the end of the following week, Morrow had convinced everyone at the labs that he was a heel. But that wasn't all. He also *felt* like a heel.

It began the first day, with Borgesdorf. Alec Borgesdorf was chief of the Research Division. He sent word for Morrow to drop into his office. When Morrow walked in, he saw his letter of resignation on the desk. Borgesdorf was grinning and frowning at the same time.

"What the hell *is* this, Bill?" he asked good-naturedly.

"What's it look like, 'Greetings from the President?' " Morrow retorted.

Borgesdorf's grin faltered. His frown turned to amazement. "Well holy cow, Bill!" he exclaimed. "What's the trouble? Why're you quitting?"

"I'm quitting this whole blasted mess!" Morrow said flatly. "Does

that answer your question?"

"Wh—well, yes, if you say so. But —you know what this means, Bill! *Why?*"

Morrow looked at him, coldly. "Suppose you mind your own business?"

Borgesdorf tensed behind his desk. The friendliness faded slowly from his gaze. "All right," he said abruptly. "But if there's anything wrong around here, I think you should tell me about it."

"Don't worry about it," Morrow sneered. "I'm quitting and that's that. Keep your dirty nose out of it."

Borgesdorf's big, fleshy face reddened slightly, but that was all. He didn't say anything for a few minutes. Then he gave a barely perceptible nod. "Very well, Morrow. That's all."

"Sure." Morrow wheeled and stalked out.

Two days later, it was little Petersen. Petersen was a wizened, little guy nearly sixty years old; he'd been playing around with radio when it was a crystal and the cat's whiskers. He had consternation written all over his seamed face as he came shuffling up to Morrow.

Morrow could almost hear the discussing that had gone on between him and Borgesdorf—Petersen frowning worriedly as the chief said, *I couldn't get a thing out of him, Pete. Can't understand it at all. See what you can get out of him, will you?*

So here was little Pete.

"Hear you're quittin' us, Bill," he drawled nasally.

"What about it?" Morrow retorted, cursing himself mentally. Pete was a nice, old guy—everybody in the labs liked him. Morrow liked him, too . . . but this was different.

"Nobody's done anything against you, have they?" Pete complained. "You're throwing away a whole lot, son. It won't be gotten back easy." His shrewd, little eyes watched Morrow, pensively. "The country needs young fellas like you now, Bill—"

Morrow forced the sneer across his face again. "That's just too damn' bad," he said evenly.

Pete's eyes narrowed. "You're talkin' like a commie—"

Morrow lashed out. The back of his hand smacked across the little man's mouth. "Beat it," he said huskily. "Beat it, you damned little shrimp."

Pete stared at him for a moment, then turned slowly and walked away.

Instantly, Mart Sumter came stalking across the lab. Sumter was big, broad-shouldered, with muscles bulging against his stained smock. He stopped in front of Morrow, his fists clenched.

"If I ever see you do that again," he said softly, "I'll give you the worst beating you've ever had in your life!"

Morrow returned his angry glare, then whirled and went back to his work.

"You heard me, didn't you?" Sumter's breath whispered on his neck.

"I heard you," Morrow rasped.

"Don't forget it." Then Sumter strode away.

Morrow grinned shakily. He was

certainly getting what he deserved!

AT home, an idea was rapidly taking on form and dimension in his mind. He set up his drafting board, collected his inks, and worked doggedly through the night, etching out diagrams that showed—theoretically, at least—how his idea would work.

At midnight, he would show up at Switzer's Cafe to walk Gwyn home.

The nights were cool and pleasant, with deep shadows along the tree-lined streets and the street lights filtering through the treetops, dappling the silent fronts of the houses. They strolled along, slowly, their arms around each other, Gwyn's body pressed close to his.

"I like a small town," Gwyn murmured softly, one night. " 'Specially at night—so peaceful, so cozy."

"I like the dark," Morrow said.

"Why?"

"I don't know. It changes things. It's a different world."

She looked up at him, wonderingly. "I think of a small town. You think of a different world. Why is that, Bill?"

"You're tired, maybe." He grinned down at her. "You've been on your feet eight hours."

"That makes me think of a small town?"

"Contentment," he said. "Small towns are contented."

"And a different world—that's exciting, isn't it?"

"Sometimes it's dangerous."

"I see." She was quiet for a while. Then, "I never asked you where you were from, did I?"

"No."

"Small town? Or city." The latter held conviction.

He chuckled. "You're not even warm! Casa Verde, Arizona. A cluster of shacks in the middle of a desert, with sandstone cliffs rising like mountains of the moon everywhere you looked, and black buzzards circling in a hot, brassy sky—"

She shuddered. "It sounds terrible."

"—And beautiful." He murmured it, gently. "We left when I was six years old. No schools there."

"Then—you're *from* a different world, is that it?"

"You might say that."

"Strange. We're two utterly different people, aren't we, Bill?" She was gazing up at him, studying his features, watching the dappled light and shadows play over them.

Morrow sensed that he was on perilous ground. He said nothing.

"You aren't happy here, are you, Bill?" she spoke almost in a whisper. "You never will be!"

"Most men I've met are—searching for something," he replied hesitantly.

"But they don't devote all their time to it," she protested. "They at least manage to live fairly normal lives and raise families—"

"Do two utterly different people—" He broke off, leaving the question unspoken. *But we're down to brass tacks, now,* he mused. *We just don't feel the same way about things!*

Why was that?

"Look," he said, almost gruffly. "I think of a different world—let's stick to that point, for now. You think of a small town. But then, why do you read science-fiction?"

She frowned in puzzlement. "What do you mean?"

"Well, isn't that a 'different world?' "

"But it's *fiction.* I don't think of reality—"

He smiled gravely. "You don't think there are horrible monsters lurking in the corners, or little people in the wallpaper, or strange eyes floating around watching you—"

"If I did, I'd be in a booby-hatch!"

"Or you might be a research engineer!" He chuckled softly. "Ignorance is bliss, Gwyn. And how much do you know about reality? What do you know of the mysteries within the atom, or the strange way the Universe seems to be expanding as if it had exploded and the stars, including our sun, were still hurtling outward from the blast?"

"Sounds like a good way to go crazy!" She looked up, intently. "I've never heard you talk like this."

"Well, you aren't quite so ignorant," he amended teasingly. "You realize inwardly that your 'small town' isn't quite so contented as it seems—that beneath the surface, there's unrest. So maybe you read science-fiction because it deals with spectacular forms of unrest—men risking their lives in space travel or on other planets, changes and developments that cause revolutions or wars—and you find solace in that. The little unrest in your 'small town' no longer seems so bothersome."

"Mr. Morrow," she spoke icily. "I do *not* enjoy having you pick my mind apart!"

Then why must you criticize me? he thought. But he didn't say it aloud. . . .

SUNDAY afternoon, they went swimming. There was a secluded strip of beach where Morrow spread a blanket out on the sand, and after they had swum and splashed and dived to near-exhaustion, they sprawled themselves out on the blanket and let the warm sun dry their skin. Gwyn lay on her stomach and removed her halter, then rolled her trunks into a narrow band around her thighs. Morrow watched with mingled interest and affection. Gwyn scowled at him, then pretended to ignore him.

When his skin began to sting through the sun-tan oil, Morrow suggested they move into the shade of the trees. Gwyn struggled back into her halter and sat up. They dragged the blanket back into the shade and sat down again. Morrow put his arms around her, and they talked for a while.

When Gwyn came out of the bushes wearing her shorts and blouse, she grinned and wrinkled her nose at him. "This has been wonderful, Bill. I almost wish we could be like this forever!" She let him kiss her, then.

They rode back to town on his little motor-bike and had cokes and hamburgers at a lunch-stand.

The second week passed without significance. The other engineers at the labs treated him coolly, now. They'd be glad when he left. At home, his diagrams were finished. He went over them again, checking them thoroughly.

Friday, a telegram reached him at the labs.

STOCKTON, CALIFORNIA
AUGUST 20 1960
BILL MORROW
WESTERTON, NEW JERSEY
HIRED PLANE AND FLEW RECON. PERFECT SITE LOCATED NEVADA. LEASED ABANDONED SAWMILL IN SIERRA NEVADAS NEAR HERE. WIRE E-T-A TO L.A. INTERNATIONAL AIRPORT. MEET YOU THERE.
D.P. SMITH

Saturday, he spent most of the day settling his affairs and packing for the trip.

The plan had begun. Whether it worked or not, he was going through with it.

The gravity-control mechanism would not be turned loose on the world to increase the tensions and fears already much too prevalent to the point where mankind would plunge into atomic war.

But the gravity-control mechanism wouldn't be abandoned, either. They'd develop it, secretly. They'd have it ready when the world situation changed—for the better, Morrow hoped—and it could be given to the world. Then, mankind would benefit from it.

That was his whole purpose—that his discovery should benefit mankind, rather than pave the way to the destruction of civilization. Morrow considered it a purpose worthy of all the sacrifices he had to make. His job, his career—perhaps later, if the plan worked, he could regain them.

But he had to try.

THE battered, worn truck came whining out of the rutted dirt road, clashed its gears, and rumbled into the wide sawmill yard. On the left, a little mountain stream laughed merrily over the rocks and then widened out, ahead, and trickled sluggishly across a brakish pond. On the right, at the foot of the tall pine trees, where the crumbling ruins of sheds and outbuildings, piles of rotted wood.

The truck halted before the main sawmill building across the yard. The mill was weather-stained and decrepit-looking, with the boards fallen off one wall and the roof sagging on one corner, but it was still standing.

Morrow and Smith climbed down from the cab of the mud-splattered truck and stood gazing around them. "Looks like she's been abandoned for quite a while," Morrow remarked noncommittally.

"She has." Smitty agreed. "But it'll serve our purposes, I think. This main building is large enough to be our hanger-workshop with a mini-

mum of repairs. The timbers have tightened up until they're like iron, else the whole building would've collapsed long ago."

Morrow nodded. "Long as the timbers are sturdy, we can patch up the holes with canvas tarpaulin if we have to."

Smitty hooked his thumb toward the stream. "I got a lab analysis of the water—it's drinkable. But we'll have to spread some oil on that pond to kill the mosquitoes. We don't have any neighbors to worry about within ten miles of here; Yosemite National Park's due south of here about fifteen miles."

"What about fire towers?"

"Forest rangers? The nearest is over on a mountainside twenty miles away. He's not going to see anything at night unless it's a fire." Smitty grinned reflectively. "I figure this can serve as our temporary base until we get the ship built and flight-tested. Then we travel due east across some of the worst desert and mountain country you'll ever see, to the site I've picked for our permanent base. It's in a deep, crooked canyon over on the other side of the Kawich Range, in Nevada."

"Not near any atomic project area, is it?"

"Uh-uh. Not near anything else, either. It's not near any airway routes, and private pilots shun that area because there aren't any fields or meadows available for emergency forced-landings."

"Sounds good!" Morrow complimented him. "Where do we camp, here?"

"I've knocked together a small cabin back in the woods. Grab your stuff out of the truck and come on—I'll fix us some chow!"

Morrow climbed into the rear of the truck and slid his luggage back to the tailgate. Smitty took a couple of suitcases, Morrow the third and his equipment case, and they strode off on a narrow trail winding through the trees.

"Now what was it you've been working on?" Smitty asked as he led the way.

"I've been working on?" Morrow echoed blankly, his mind filled with sensations of clear, cool mountain breeze and the smell of tall pines and the eternal silence of the woodland.

"Yeah!" Smitty prompted. "When we were having dinner, back in L.A., remember, we were talking about the event of anyone catching us at this, that we'd be finished if they did? You said you'd been working on something that would protect us from discovery."

"Oh, that!" Morrow grinned. "I merely figured out a means of camouflage."

"Camouflage?"

"It's still just in its theoretical stage, but I think it'll work. I'll show you my diagrams."

"Show me while we're eating."

THE little shack nestled under the pines was cozy and weatherproof, built out of rough lumber and fitted out with hand-made furniture.

The air was filled with the aroma of fried bacon, coffee, and wood smoke. They sat at the small, wooden table and ate out of tin plates, washing it down with tin cups of coffee, and Morrow spread his diagrams between them and explained his idea to Smitty.

"—So it's all designed around that propulsion unit," he said. "The gravity-control ring establishes a focus of 'false gravity' inside the tail-pipe so that air is sucked in through the scoops on the ship's hull. The air 'falls' into that focus of 'false gravity' and goes on past it to shoot out the tail-pipe at an estimated sixty-mile-an-hour gale."

"Couldn't we do just as well with a large electric fan?" Smitty asked, half-jokingly.

"This propulsion unit will cost only a fraction of the price of a large air-conditioning fan and motor," Morrow pointed out.

Smitty grinned at the diagrams. "Okay, but you've certainly sketched in a fancy-looking ship, there! Aerodynamically, I'm afraid it wouldn't be too practical—"

"I know," Morrow admitted. "But we'll have to work that out and still keep this fancy-looking ship."

"How come?"

"Because that's the whole idea, Smitty! Think a minute. Suppose we've built our ship and are flight-testing it. So there's always the possibility that someone will see it—"

"—And call the cops!"

"Right. Normally, that would bring on an investigation and we'd be finished."

"I hope they serve good food at Leavenworth!"

"Stop interrupting, will you? Now, the idea is this: suppose whoever sees us *thinks* they're seeing a ship *from outer space?*"

Smitty's grin faded. He stared at Morrow for a moment, then picked up his cup and took a healthy swig of coffee. "I see what you mean," he said, replacing his cup carefully on the table. "They think they're seeing a rocket ship from Mars, or something like that. So they go to the cops and start yelling about it. And that's happened so often—"

"We won't have to worry about any thorough investigation," Morrow concluded, smiling. "They might check the area in which our ship was sighted—"

"Which isn't likely to be around here!"

"—But that's all. Even if it is around here, they aren't going to ask us too many questions so long as we don't have two heads, blue skin, and arms like an octopus!"

Smitty chuckled mirthfully. "You'd better keep out of sight, then!"

"Cut the quips!" Morrow growled mockingly. "I think the idea will work. We'll just have to design the ship so it looks wierd enough to excite the imagination. It may have some aerodynamic faults, but it's worth the trouble."

"We can't make it *too* fancy," Smitty warned. "It's still gotta fly!"

"We don't want it too fancy—just

so it *looks* like a spaceship! First thing we'll have to do, though, is check the costs of plastic construction materials for aircraft." Morrow gulped the last of his meal down with a swallow of coffee, stacked his cup plate, and utensils, and set them aside. "We don't want to go too deep into our capital to build this ship," he said wryly. "The lease on this property has already soaked us two thousand."

"What'll the shop machinery come to?" Smitty asked pensively.

"Around a thousand, I think."

"Then I think we can build the ship for around—well, anywhere from one to three thousand dollars. At the most, that'll be just over half our capital down the drain." He frowned. "What'll the rest of it be for? Operating expenses?"

"Mostly that. There are a few other ideas I'd like to try out, though—experiments with these mechanisms. But remember that we're dedicated to this thing until the world situation changes and we can turn it loose without any risk. That may not come for years!"

"I've thought about it," Smitty retorted, grinning. "There's a deer run over near our Kawish mountain hideout, and other game is plentiful. Our meat supply for the next hundred years costs no more than the price of a couple of hunting rifles."

Morrow shook his head. "That might be fine, Smitty. Maybe we could plant a vegetable garden, too, and live off the land. But I don't think we should subject ourselves to the life of a hermit. We've got to keep our perspective with this thing, and not get anti-social about it."

"A hermit's life would get kinda boring, anyway," Smitty conceded. "But I can always go back to crop-dusting and make a few dollars now and then. What'll you do, though? Can you get a job?"

"I know electronics!" Morrow smiled grimly. "I suppose I could open up a little radio repair shop somewhere."

"You? A radio repair shop? The first real genius this country's had for—" Smitty broke off, staring at him.

Morrow stared back, scowling. "Genius?" he echoed. "What in hell ever gave you *that* idea?"

Smitty grinned faintly as he lighted a cigarette. "Guess I'm just carried away by your two heads," he said, spewing smoke.

IT was a full month's work just to purchase the shop machinery, the building materials to patch up the old sawmill, the materials for the ship's construction, and to truck it out and install it in the building. They worked from daylight 'till dark, then retired to their shack and spent most of the night going over the blueprints for the ship. Gradually, it took shape and form on paper.

Masses of cloud were banked against the surrounding mountains, covering the sky with a solid, gray mass that shook loose a thin drizzle of rain, just enough to dampen the ground, the morning they conducted

the first weight-test.

They used the gravity-control mechanism—they called it a *gravitor* by then—which Morrow had built in Westerton. The test was conducted outside, with a sling suspended under the gravitor to support a pile of sandbags, with a rope hanging from its bottom to a small hand-winch on the ground.

The gravitor rose up into the drizzle with its load, lifting three hundred and sixty-nine pounds to a height of forty feet. It floated there, the rope dangling loosely from it. There was an odd three-foot S-curve in the rope just below the sandbagged sling.

Smitty stared up at it, squinting against the misty rain. "It just floats there!" he exclaimed huskily. "On four flashlight batteries—"

"The wind's drifting it toward the trees," Morrow said in a tight voice. "Better take up the slack."

Smitty stooped and wound up the little hand-winch. Then he straightened and stared upward again. "On four batteries," he repeated in his husky murmur. "Look at that snake-twist in the rope!"

"That part of it's inside the gravitor's field," Morrow explained quietly. "As for the batteries, I think it's because the mechanism is shielded from the gravity and magnetic influence of the earth. It works entirely within its own magnetic field. Its electronic conductivity is more efficient, so we're getting far more power from those flashlight batteries."

"But *is* there that much power in a flashlight battery?"

"Don't forget those batteries are also inside the gravitor field," Morrow reminded him. "Anyway, I'm not even sure that's the answer. The scientific implications of this extend to such matters as the dimensions and volume of the Universe, and the speed of light. Maybe the Universe isn't expanding and maybe light 'particles' or 'congealed energy' or whatever they are don't slow down. Maybe they curve through a kaliedoscope of gravitational forces generated by star-clusters, and the 'expansion' is a matter of refraction in our particular sector of space—"

"Do you have these attacks often?"

Morrow looked down to find Smitty watching him with a mocking leer.

"C'mon, professor," Smitty chided him. "Let's crank this thing down and get in out of the rain."

"Ummm? Oh—all right!"

CRUDE wooden jigs were sawed out and nailed together. Plastic tubing was heated and curled into the jigs and, when cooled, was taken out in the precise shapes of formers, spars, and bulkhead frames. These were welded onto thick plastic rods and the rough outline of the ship began to appear. More rods were added, strengthening the framework, and the ship began to assume its final shape in a spidery basket-work of glistening, transparent plastic.

The covering was torn off a large roll of celatex film, and long strips of it were spread through the inside of

the framework and cut to size. The strips were dipped in a softening bath, then stretched across the inside of the framework, pressed against it and, drying, molding to it to form a tough, rigid inner skin. Fistfuls of plastic insulating material was dipped and sponged into the openings in the framework, molding to it and to the inner skin. Then more strips of celatex were cut to size over the outside of the framework, dipped, and stretched over it to form a strong outer skin. The result was a large, sleek hull, with a shimmering basket-weave framework and frosty-white, fuzzy insulation showing through its transparent skin.

Gravitors for the lift units and the propulsion unit were built, tested, and installed. A cargo deck was built into the belly of the ship, accessable through large side doors. Power circuits and control systems were installed. The forward, control pit, and aft compartment decks and bulkheads were welded into place. Then they let their imaginations run riot on the interior decoration, fittings and furnishings which were easily constructed of plastic framework with celatex stretched and pressed firmly over it to form the desired curves, bulges, and flowing lines. Then they went over it with sandpaper, paint-brushes, and dark blue and mirror-chrome plastic lacquer.

The interior was, to put it mildly, luxurious and ultra-modern. Smooth, flowing instrument panels and storage lockers molded into the walls, foam-rubber chairs growing out of the decks, bunk-seats sunk into the bulkheads, and transparent-topped tables sprouting their chrome frames from the fore and aft lounge decks. They finished it up with a small lavatory and an electric hot-plate in the bulkhead cubicles just off the forward lounge.

Finally, transparent plexiglass was fitted into the long port-hole slots along the hull, and a large plexiglass dome was mounted over the control pit above the smoothly tapered nose. Then they papered the plexiglass and manned a spray-gun, giving the entire outer skin a thorough coat of shimmering black lacquer.

The complete construction took all of six weeks working from dawn to well after sunset. When it was finished, Smitty took the truck and went into Stockton to purchase the three automobile batteries which would be used to power the ship.

That night, Morrow sat at his drafting table scrawling rough diagrams and pencilling in mathematical notations around them and on the back of the papers. His table lamp threw a bright pool of light in the corner of the dark, shadowy workshop. The night was completely silent, save for the distant sighing of the wind through the pines outside, the faint scratching sound of his pencil, and the clicking and whispering of the slide-rule in his hands when he paused to compute some factor in the diagrams.

Building and weight-testing the gravitors that went into the ship had

led to speculation of other possible uses of the mechanisms. The possibilities were many, and Morrow spent his spare-time working them out. His ability, however, was limited.

First, there was the electronic efficiency of the gravitors, the increased power gained from battery storage-cells, the decreased loss of power within the circuits and mechanism. If electrons worked more efficiently in a gravitor's field, then mechanical and chemical power might work just as well. It appeared, on paper, that a small, one-horsepower gasoline engine might deliver the equivalent of a hundred horsepower or more in electrical energy, if it were incorporated into a gravitor field. Morrow worked this "gravitor engine" out the best he could, cursing his lack of knowledge in mechanical engineering. It might work, but he didn't have the knowledge to tell exactly how it could be made. It wasn't his line.

Then, there was the possibility of using the increased gravitor-field efficiency in radio communications. This was right up his alley, but the implications went so far and so deep that only a thoroughly experienced and trained scientist could trace all of them. He hadn't been an engineer long enough to have acquired that much training and experience; he wasn't a renowned scientist in the field. He couldn't always be sure where he was right or wrong in his computations. This was pure research; no book had ever been written for it. He couldn't look up all the answers.

But it appeared that a small radio set would have the power to reach anywhere in the Solar System, not to mention the extensive refinements of any television and/or radar set-up.

The possible refinements of chemical catalysts and electro-chemical processes were extensive, too. Staring at his diagrammatical results, Morrow wondered if mechanisms couldn't be perfected to measure the taste of foodstuffs as the taste-buds in the human mouth did, to measure the smell of odors as the human nose did, to convert carbon-dioxide into oxygen as plants did—even mechanisms which would react selectively to the electrical impulses generated by the cells of the human brain!

But he wasn't a chemist. He could only guess at the possibilities.

Finally, there was the possibility of applying the gravitors directly to the problem of transporting the human body by air. Part of this, he could answer: a gravitor strapped to a man's back would more than replace the conventional parachute for emergency bail-outs. The gravitor could be hooked into alternate power-circuits with alternate field-transmission coils, so if it failed to work on one setting the wearer could switch it to another, the equivalent of wearing a second parachute in case the first failed to open. And unlike a parachute, the wearer would have complete control over his rate of fall: he could descend gently to the ground or, if he wished, he could

stop and hover in the air or even reverse his descent and rise upward.

That was part of it. Morrow had discussed it with Smitty and they'd decided to incorporate it into their project. In addition to having the ship look like something from outer space, there was also the problem of having to make a forced-landing somewhere. They might be seen on the ground, repairing their ship. The gravitors could be built into a tank carried on their backs, and fastened to a special harness costume complete with transparent helmet fitting over their heads. The helmets would protect their faces from the wind in a bail-out. Also, their appearance would be altered just enough to make them seem to be visitors from another planet, beings who did not breathe Earth's atmosphere.

But that still didn't give the human body a means of transportation by air. A small, portable propulsion unit was needed for that, and Morrow wasn't at all sure he could design such a unit. He was not a jet engineer.

He wasn't too sure about the large propulsion unit in the tail of the ship, either. Basically, it was a ram-jet unit. It ought to work, but it might not work too well. . . .

MORROW tossed down his pencil and slide-rule, sighing, then pressed his hands over his aching eyes and rose from the table. *It's too much for one man!* he thought bitterly, and dropped his hands to his sides.

He stood gazing into the deep gloom of the workshop, at the huge, black hull gleaming softly in the darkness. Fifty-five feet long and fifteen feet high, the ship rested patiently on the narrow runners that supported its sleek belly. Twenty-five hundred dollars and six weeks of cautious, painstaking work rolled into one beautiful, fantastic-looking black monster with curved fins around the cluster of "rocket" tubes in its tail and streamlined, submarine-type diving vanes near its nose. Those vanes had been Smitty's contribution, operating on a cross-control system to bank the ship and lift it around a turn as the aileron-elevators did on flying wing aircraft. No other control surfaces were installed; the long, sleek rudder fin was immovable.

The night wind soughed through the forest on some nearby mountain slope. The ship stood black and silent, gleaming softly in the deep gloom of the workshop. It was a weirdly beautiful thing, like some creature of the Unknown.

Straight out of the science-fiction magazines! Morrow mused, grinning. *If Gwyn could only see it—*

A vision of her rose into his thoughts: Gwyn, lying on her stomach, the tight roll of her swimming trunks about her thighs, the smooth, tanned skin of her slender body, the firm swell of a breast beneath her armpit, the sunlight glints on her brown hair and the cool, calm wariness in her eyes. . . .

Morrow grimaced wryly. Gwyn again! He'd been thinking entirely

too often of her, and too much, since he'd left Westerton. He kept telling himself she was just another of the sacrifices he'd been forced to make, another part of his life he'd had to deny himself—

Still, when he slept he dreamed.

He was just too damned young, he told himself harshly. The demands of his body were strongest at his age; it wouldn't let him alone. His instinct to mate, to reproduce his kind, demanded satisfaction. There was danger in that. If he fought it, denied it, kept it bottled up inside him, it could spread and infest his whole being until it became a perverse fixation on sex. He had to have some outlet for it. Time off from his work, time to relax and enjoy female companionship, the nearness of a woman. An older man, in whom the mating lust had had time to diminish until it wasn't quite so strong and insistent—an older man could retire and live in an ivory tower of science. He couldn't. He must make allowance for it.

Find himself a girl in town. A date, a little moonlight and soft talk. Forget about a girl three thousand miles away. Forget Gwyn. . .

But he wished she were here. He wished she could see the ship.

Dawn was etching its rose-colored light in the East when Smitty drove in the yard.

THEY installed the batteries and climbed out through the simulated air-lock entrance to the ship, peeling off their gloves and shoving them into their hip pockets. Smitty turned, wiping his hands on his coveralls, and looked up at the ship.

"We can ground-test her without taking her outside," he said plaintively.

Morrow picked up his mackinaw and slung it over his shoulder, grinning. "Can't you wait 'til tonight?"

Smitty scowled at him. "Suppose she doesn't check out? Then we'll spend the rest of the night overhauling her! We oughta give her a ground-test right in here, Bill."

"Fair enough—if she doesn't go through the roof! But let's wait 'till after breakfast, anyway." He walked over to the stove, checked its fire, and shoved a couple more sticks onto it to keep it burning until they got back. "C'mon," he prompted, heading for the door. "I'm hungry if you aren't!"

They left the workshop and crunched through the brittle ground-frost to their shack. Morrow took his turn as cook, whipped up a batch of sausage, eggs, and pancakes, and boiled the coffee to the strength he preferred—which Smitty diluted liberally with canned milk. They gulped down their breakfast, cleaned the dishes, and strode deliberately back to the workshop. The chill November air bit into their clothes, but neither hastened his pace.

As they entered the warmth and shadow of the workshop and pulled off their coats, Morrow felt a fluttery sensation in his stomach which he carefully neglected to mention. It was probably indigestion, anyway.

Smitty, too, was silent. He tossed his coat on the workbench, strode straight to the open airlock door, and clambored up into the ship. A tight grin creased Morrow's face as he followed with what casualness he could muster.

They moved through the luxurious forward lounge and climbed the metal steps into the control pit. Smitty slipped into the pilot's seat behind the controls and flight panel, up forward. Morrow took the flight engineer's seat behind the instrument console, on the left side of the transparent blister dome. The console sloped gently, like a desk-top, its surface glittering with a dozen instrument dials, twenty-four switches, forty-eight signal lights, two knobs and master switches, and a jet-blast temperature gauge.

"Flight station checks," Smitty reported quietly.

"Roger." Morrow swept his hands across the console, flipping on the twenty-four switches. "Stand by for gravitor check," he added, then clicked on the two knobs.

The ship shifted slightly beneath them. The faint, sighing sound of wind came from the tail.

On the console, twenty-one signal lights flashed blue. Three flashed red. Morrow scowled at them.

"Report gravitor check!" Smitty prompted impatiently.

"Three gravitors out," Morrow growled. "One auxiliary lifter, one auxiliary and one main drive gravitor. Must be a short in 'em somewhere."

"We don't need the drives for a ground-test," Smith reminded him. "Cut to main lift units and let's try her out!"

"Wilco." He switched off the drive knob and the twelve auxiliary lifter switches. "Stand by to rise!"

The sighing wind was gone from the tail. He gripped the lifter knob in his fingertips and, turning his head, stared out at the dark floor of the workshop below.

He turned the knob, cautiously.

The ship rocked gently, then lifted. The floor dropped away beneath them.

"Watch it!" Smitty warned tersely.

The ship paused, then seemed to settle.

They floated serenely, twenty feet above the workshop floor. The heavy rafters of the roof loomed close over the transparent blister.

Smitty cleared his throat, nervously. "I think that's high enough!" he exclaimed.

Morrow permitted himself a fleeting grin, then began to inch the knob back toward its stop. "Stand by for descent!" he warned.

The ship settled slowly. The floor rose up with majestic deliberation—then paused again.

"How high are we?" Morrow asked.

"A little over four feet on the altimeter," Smitty replied. "Want to hold her here a while?"

"I want you to climb out and see how much it alters her lift," Morrow explained. "One less passenger

shouldn't affect it at all, but let's make sure."

"Wilco." Smitty rose from his seat and came back toward the steps.

"Jump around a little," Morrow said. "See if it rocks her any."

Grinning, Smitty banged noisily down the steps and clattered back through the ship. She rode perfectly still, unmoving. Smiling his satisfaction, Morrow waited.

Then Smitty walked around the bulge of the nose, on the floor below, and waved to him. Morrow waved back and, rising, moved up to the front seat. The altimeter still registered slightly over four feet. He returned to the console, sat down—and snapped off the lift knob.

The ship settled immediately to the floor, struck lightly, and rocked to a standstill. Morrow clambored down the steps and felt his way back through the dark interior to the air-lock.

Smitty was waiting for him as he dropped to the floor. "She checks, doesn't she?"

"She checks," Morrow affirmed. "Now let's get to work on those shorted gravitors!"

THE first night's tests were preliminary. They lifted the ship a few feet off the ground and flew it across the sawmill yard and back. They switched the gravitors from main to auxiliary systems. They loaded the cargo deck amidships with sandbags and flew a weight-test. They took the ship up to fifty feet and held it there until the wind, blowing them toward the trees, forced them to come down.

The ship checked out in every test. They decided to make the first trial flight the next night.

Morrow sat up in the co-pilot's seat beside Smitty as they drove steadily through the darkness. Above, the stars twinkled coldly in the black heavens and the white sickle of a quarter-moon threw its milky glow into the control pit. Below, rolling gray stretches of meadow spread out between dark, timber-clad shoulders and humps of the Sierras. To the East, the timber gave way to rocky, cloud-wreathed peaks. They were headed toward them, and climbing.

"Five thousand on the altimeter," Smitty remarked flatly. "That's ten thousand, five hundred above sea-level. She isn't levelling out yet." His face was grim in the green glow of the instrument dials.

Behind them, the black, glinting hull was crammed with sandbags. They were lifting a full load.

Morrow kept his gaze fixed on the air-speed indicator. A deep, whooming sound came from the tail-jets. The needle on the indicator dial flickered restlessly, back and forth, over a single point.

They were doing forty miles an hour, indicated airspeed. They hadn't been able to increase that speed. A brisk twenty-five-mile-an-hour wind was blowing them steadily southward off their course.

Smitty shook his head. "Those jets don't even *sound* right, Bill—"

"I know," Morrow said. He sighed

wearily. "We've got to do better than this. Take her higher—ram-jets are supposed to work better at high altitude."

"I don't want to go over twelve thousand without oxygen," Smitty replied. "Can't let this wind blow us down over Yosemite National Park, either—if we can help it."

"Take her up," Morrow said.

The ship continued to rise, steadily.

"Eleven thousand," Smitty chanted. "Eleven thousand five hundred, twelve thousand, twelve thousand five—she's flattening out!"

Their ascent slowed, gradually. The ship steadied at thirteen thousand feet above sea-level—7500 feet on the altimeter, which had been zeroed to the altitude of their sawmill workshop.

"Down!" Morrow barked. "She's losing speed!"

The indicator needle was creeping back past thirty-five, then thirty—their sideward shift to the south could be felt. Smitty shoved forward his control wheel. The ship dived.

They glided easily back across the mountain slope toward their sawmill. Judging their wind-drift accurately, Smitty set the ship down in the yard before the black, yawning doors of the building. As the runners scraped the ground, he switched off the gravitors and slumped back in his seat, dejectedly.

"We've got to rebuild that jet chamber," he muttered. "There's something wrong with it, Bill. All we've got is a big wind-blower, in spite of her weightlessness—the drag of the hull wouldn't slow us down *that* much!"

Morrow unbuckled his seat-belt, rose, and strode back to the steps without a word.

It took them a week to pull out the rear bulkheads and completely redesign and reconstruct the tail-jet assembly. When they finished, they tried it again. They got an airspeed of seventy m.p.h. at low level, but it dropped to twenty m.p.h. as they gained altitude. The tail-jets didn't just make a whooming sound, this time—they made a rumbling, burbling sound.

They landed and pulled the ship into the workshop, closing the big doors after it. Morrow walked over to the workbench, pulled off his gloves, and threw them down.

"It's no good!" he said harshly. "That jet chamber just isn't shaped right—there's too much turbulence in it, breaks up the jet-blast."

"We'll rebuild it again," Smitty said, with a shrug in his voice.

Morrow wheeled and glared at him, red-eyed. "We aren't jet engineers, Smitty. We're building by guesswork! We can redesign that jet chamber a thousand times and never get the right shape!"

Smitty moved on to the stove and began stoking up the red coals, stacking wood on them. "She does seventy per hour up to seven thousand feet," he said dully. "If that's the best we can do, we'll just have to be satisfied with it."

"It's not *good* enough!" Morrow

protested. "She *has* to have more speed, Smitty. She'll be at the mercy of every wind that comes along if she hasn't, weightless as she is!" He smacked his fist into his palm, decisively. "We've got to get help, chum."

"Help?" Smitty turned and looked at him, querilously. "Where can we get help?"

"A jet engineer," Morrow snapped irritably. "That's the only one who *can* help us. We've got to find one—" He broke off, suddenly thoughtful.

Smitty grinned without mirth, mistaking his silence for hopelessness. "That's the trouble, Bill," he said. "There's no one who *would* help us!"

"I'm not so sure about that!" Morrow replied softly. "*I'm not so sure at all*—"

IT was late Friday afternoon when Morrow parked the battered, mud-splattered truck on a side-street and climbed out to go for a quiet stroll in suburban Sacramento.

The street address he was looking for turned up in the next block, near the edge of town. It was an inconspicuous one of the long street-row of small houses with a green lawn stretching down to the curb and dotted with a few evergreen shrubs, a broad livingroom picture window in front, a white front door with a small ornamental iron night-lamp mounted above it, and a one-story, red-tiled roof in the flat, gently sloping California style.

Morrow walked past the house and around the block to the alley. He walked up the alley behind the house. Its rear was as inconspicuous as its front: a wide yard partly in lawn, partly in flower garden and part gravelled with clothesline, enclosed by a low, whitewashed wood fence. The only noticeable difference was a small sand-box in which a small brother and sister were playing with toy cars. The little boy and girl wore matching rompers and had straw-colored hair which, Morrow concluded, they must have inherited from their mother. He'd never met Mrs. Foster, but he remembered Bob Foster's dark, heavy hair.

He walked on down the alley, studying the back yards behind the other houses. He noted how wide the alleyway was, how high surrounding fences, garages, and other obstructions were, and the lack of telephone poles or wires overhead. He nodded his satisfaction.

When he got back to the truck, he took a street-map from the glove compartment and carefully marked the exact location of Foster's house.

Then he drove out of Sacramento, had dinner at a roadside restaurant, and proceeded to Stockton. Smitty met him downtown and they went into a lunchroom for coffee.

"Groceries and laundry's taken care of," Smitty reported wryly. "How was Sacramento?"

"Fine," Morrow said. "If the weather forecasts for tomorrow night pan out, we'll get in and out without any trouble."

Smitty frowned worriedly. "It's still a big risk to take, Bill. We'll be

flying into the Coastal Radar-Defense Zone, you know, and we can't just file a flight-plan at an airport for an unauthorized, illegal ship. I'd hate to look up and see an F-140 night-fighter with its nose-cannon blazing at me!"

"That ground radar isn't effective below three thousand feet," Morrow reminded him. "I think we can sneak in at treetop-level without being detected."

"That's all right, unless we fly into a power-line in the dark," Smitty grumbled. "It's still risky as hell—"

"We've got to have Foster," Morrow said firmly. "I can't say for sure whether he'll join us or not, but we've got to try!"

"Okay!" Smitty signed resignedly. "We'll try."

The following night, Morrow left Smitty checking over their ship and flight equipment and drove the truck down to a gas station on the highway, thirty miles west of their sawmill-workshop. He parked beside the gas pumps, told the attendant to fill the tank and check the oil, and went inside to the pay-phone booth.

He called Sacramento Long Distance and gave them Foster's home videophone number.

There was some fault in calling from a pay-phone, of course—and a Long Distance call on a rural pay-phone at that. Neither Long Distance calls nor pay-phones nor rural phones had the new videophone accessories. Videophones, involving two-way television transmission via a camera-screen installation, were still in the development stage. Metropolitan and surburban phones had the video screens. Long Distance coaxial transmission was still too costly to merit the installation of the screens on rural phones—which also ruled out Long Distance video calls. To install the screens in pay-phones would, as yet, triple the cost of the calls.

Naturally, the Sacramento operator would inform Foster this was a Long Distance call; Foster's screen would remain blank. The gas station's pay-phone had no screen. This was a disadvantage to Morrow: not seeing Foster's face, he wouldn't be absolutely certain he was speaking to Foster. He'd have to rely on his memory of Foster's voice, and it had been more than two years since he'd met Foster.

Positive identification could be important. Morrow kicked himself mentally for not making a local call to Foster's home while he was in Sacramento. Suppose Foster had moved in the past two years? Suppose there was some sort of slip-up that aroused someone's suspicions just enough to start the authorities on an investigation—

Even the *slightest* mistake might finish them!

And the call had to be made. Their plan was set for tonight, Saturday night, because Foster was most likely to be home from work—research engineers often worked late hours on weekdays—and because he'd probably have the next day off. They had to get Foster out for that one day, and it had to be done right. But they

had to be certain that Foster was home when they went after him.

The receiver continued its rattling noise in his ear as Morrow waited, fidgeting impatiently, and the seconds crawled past.

The rattling ended with a faint click.

"Hello?"

Morrow exhaled a shuddery sigh of relief. He recognized Foster's characteristic deep, muffled tones almost at once. "Hi, Bob. This is Bill Morrow—"

"Morrow? Well, hi yourself! Where you calling from?"

"I'm on the highway," Morrow said. "I'm on my way north and wondered if I might drop in as I pass through Sacramento—I ought to be there in a few hours. You going to be home?"

"Ye-e-es. C'mon around, by all means! You still have my home address, haven't you?"

"Sure thing. How've you been?"

"So-so, between drawing curves on flight-test characteristics and pounding out stories. You written anything lately?"

"I've been a little too busy to give it much thought," Morrow answered truthfully.

"Uh huh! Well—say, you going to be in 'Frisco for next year's science-fiction convention?"

Morrow grinned. "'Sa little too early to say, yet. I'll see you in a few hours, then, huh?"

"Right-o! We'll have the beer on ice!"

MORROW drove back to the sawmill workshop and helped Smitty perform a final inspection of the ship and equipment. Their plan was worked out thoroughly. The ship would fly to and from their target at low altitude, and at its maximum speed. The forecast weather conditions would aid in hiding them, but it would also hinder their flight—much of it would have to be done on instruments, and Smitty spent considerable time studying topographical sector-maps and radio omni-range vectors.

Their personal gear consisted of two special suits which would serve to conceal their identity as well as aid them in an emergency. The suits, patterned out of shimmering fabrilastex material, fit with skin-tight snugness over their long winter underwear and socks. The foot-soles of the suits were of springy foam-rubber, heat-welded to the fabrilastex just as the seams in the material were heat-welded to a perfect fit. A sturdy harness fitted into the inside of the suits to grip their legs, thighs, and chests, suspending them in bail-outs from the sturdy plastic tanks on the back of their suits. Each tank enclosed a gravitor unit. A lightweight, transparent blue dome helmet fitted over their heads and clamped onto fasteners on their shoulders. There were small air-vents around the bottom of the helmets and in the fantastic-looking knob attachments in their tops.

They pulled on their suits in the workshop and stared at each other,

grinning. "All you need," Smitty taunted, "is a flashlight ray-gun in each hand!"

"You look pretty monstrous yourself, blue-face!" Morrow retorted.

"*You* look *sexy,* old boy!"

"*Down,* Rover! Better climb on the ship's radio and check the weather reports again—"

"Wilco!"

Morrow walked to the end of the workshop and swung open the big doors. Then he went back and crawled into the ship, swinging the thick "airlock" door into its grooves behind him. As he climbed into the control pit, Smitty reported that the weather was just as lousy as they wanted it to be: clear, cold, and windy at high altitudes, with some low cumulus and a five-hundred-foot thick blanket of fog hugging the ground and creeping in and out of the valleys. There were several scattered thunder-showers and by morning there would be solid rain in the mountains.

Morrow switched on the gravitor units at the flight engineer's panel, then moved up and strapped himself into the co-pilot's seat. "It's your bus, Junior," he said. "Let me know when we reach my stop."

"Passengers move to the rear, please," Smitty retorted, and eased the ship cautiously out of the workshop. They swung northward and set off, flying just a few hundred feet above the mountain slopes. The moon was a cold, white gash in the black heavens, and the dark mantle of the treetops swept past below.

Unfastening his helmet, Morrow swung it back and relaxed, lighting a cigarette. . . .

THEY had to use every precaution in going after Foster. In the first place, they had to consider that he might be violently opposed to their project—that, in fact, he might go straight to the authorities with it. The only safeguard against that was simply to prevent Foster from knowing where their project was located. Without that information, he would probably find it difficult to make the authorities believe him. A mere story about mechanisms that control gravity, without any basis of fact to support it, would sound rather far-fetched.

For that matter, it would have been difficult merely to visit Foster and convince him they did have such mechanisms! The only quick answer was to show him, to prove it to him. Then he would listen to them.

There was a good chance that he'd approve of their project and help them with it—otherwise, Morrow wouldn't have thought of him. And he was a man who could help them. Robert Foster was a jet engineer, employed as a flight-test analyst at an aircraft corporation's experimental plant near Sacramento. Morrow had met him, however, because Foster had written many stories for the science-fiction magazines, mostly on the galactic empire theme. They had met at a private science-fiction club in New York and spent most of a long night in a bar, along with several

other writers and magazine editors, discussing subjects of vast scope and consuming beverages in vast quantity. Foster had proved himself a kindred soul of fertile imagination, if not of superior intellect, and so into the wee, small hours.

In short, Foster had impressed him as a man to be trusted when the going got rough.

Whether or not that impression had been correct, Morrow didn't know. Tonight would certainly put it to the test. They could only ask for his help, and that was all. If he refused, he refused. They couldn't use threats or coercion or any suggestion of violence—that would gain them nothing.

Foster *had* to agree! There was no one else! Without his help, they were stymied. . . .

The weather thickened as they turned west, coming down off the slopes of the Sierras. Silvery masses of cloud drifted by in the moonlight and a thin, gray haze obscured the ground. They cruised along, their tail-jets rumbling, descending slowly to pass beneath a long row of clouds ahead. Raindrops began streaking the transparent blister which pinged at their impact; then it began a steady, ringing sound as the downpour increased. The world was turned into a gray, trickling wetness, faintly reflecting the green glow of the luminous instrument dials. The lights of a town appeared off to the left, wavering sparks in the wet gloom. Smitty swore under his breath.

They emerged from the shower to find themselves over an endless mass of cottony white, completely hiding the ground. "Now we gotta go down through that stuff!" Smitty muttered, and pushed the nose down.

The ground became dimly visible through the mist at a height of seventy feet. "Airspeed's a hundred and ten; headwind was reported at twenty miles." Smitty chanted glumly.

Morrow said nothing for a moment, knowing Smitty meant that if they were flying any faster their dim, wavering view of the ground would mean nothing. Then he started and looked up. "A hundred and ten? In a twenty-mile wind? That's ninety miles an hour!"

Smitty stared at his instruments and nodded slowly. "We're doing better than we did" he agreed. "Either that, or this wind has twisted its tail We'll check it again"

They flew onward through the swirling, dark mist. The dark blurs of trees flashed past below, and houses, roads, and telephone lines. Dim, shadowy objects, hardly recognizable. And there were moments when the mist closed in completely, hiding everything. Morrow felt a cold sweat forming on his face. The jets made a deep, mournful rumbling sound in the ship's tail. A highway swept past below, with car headlights revealed as moving blobs of yellow in the darkness.

"This is the block," Morrow said, finally. "Swing across it and come down in that alleyway in its center. I'll tell you where to land then."

Below them were the familiar rooftops of the houses, rising darkly out of a thin ground mist. Smitty brought the ship over them, cutting the jets, and let it coast to a stop over the narrow, vague band of the alleyway. Slowly, they drifted downward.

Morrow consulted the street-map on his lap again. "Up a little further," he directed.

The jets gave a brief, rumbling sigh and they glided forward.

"Here—ground her!"

Gravel rasped against the ship's belly. They unfastened their belts and scrambled down into the ship.

"What time is it?" Smitty whispered, as Morrow swung open the door.

Morrow glanced at his wristwatch. "Three-ten a.m.," he said half-humorously. He wondered if Foster was still waiting up for him. "Fasten your helmet down, and let's go!"

They dropped down from the ship and went over to the low, white fence behind Foster's house. Passing through the gate, they strode across the yard. The mist-shine glimmered faintly off their bodies. Their blue-tinted helmets were grotesque globes of darkness, like the heads of nightmare creatures.

Light glowed from a window in the side of the house. "Somebody's up!" Morrow observed softly.

"Do we go 'round and ring the front doorbell?" Smitty wondered. "Or do we just walk in?"

Morrow shrugged. "It won't make much difference. Let's try the back door—if it's locked, we'll go around."

They reached the door and he tested its knob, careful not to make any noise. It yielded readily.

They entered.

The faint light filtering down the short hallway was enough to guide them across the dark kitchen. Then they had to pass the dark doorways of what were probably two bedrooms, on either side of the hall. They reached the lighted doorway near the front, and stood looking into the living room.

Robert Foster was seated in a comfortable chair next to the television set. A single reading lamp was burning—the pipe clutched in Foster's teeth was out—and he seemed deeply engrossed in a good book.

Morrow reached up and snapped the fasteners on his helmet.

Foster lifted his gaze with the utmost casualness and studied the two figures in the doorway. He looked quite happy and contended, dressed in an old pair of slacks and loafers and a turtle-neck sweater. His dark, touselled hair showed evidence of his hand running through it—a habitual gesture of his, Morrow remembered.

Slowly, a stunned expression crept across his face.

Morrow swung his helmet back onto his gravitor tank. "Hello, Bob," he said.

Foster slipped a marker into his book, closed it, and laid it carefully aside. "Morrow?" he said. "So you finally made it! I might've known you'd be coming by way of Jupiter

—but why the get-up, friend? And who's your partner?" There was just the slightest quaver in his voice.

It was almost more than Morrow had hoped for. He could play it through, now. "This is a Martian friend of mine," he said, hooking his thumb toward Smitty. "I can't stay long. Somebody might see our spaceship and get curious."

"Your—spaceship?" Foster queried falteringly.

"We landed it out in back."

The room was silent for a moment Foster sat dumbfounded, staring at them. A flicker of a gleam began to show itself in his eyes. "Am I to understand," he said gently, "that you have landed a spaceship in my back yard?"

"No," Morrow corrected. "In the alley."

"Hmmm—it'd better be in the alley. My wife would slaughter us both if you'd trampled her gardenias." Foster fell back in his chair. He tried to relax; he even grinned, somewhat shakily. "Now what's the idea, Bill? Why'd you come tippytoe in here like this? Out with it!"

"Take too long to explain," Morrow replied, shaking his head. "Somebody's liable to see that spaceship any minute, now." He forced a broad, innocent grin across his face. "You want to come have a look at it?"

"Ye-e-es!" Foster agreed sarcastically, rising from his chair. "I suppose I *should* take a look at it—"

Morrow led him out the front door and around the house. "Don't want to awaken your wife," he explained, clamping down his helmet.

"No-o-o-o!" Foster conceded. "I wouldn't advise that!" They proceeded on across the back yard, through the clinging, wet fingers of the mist.

Then Foster saw the ship.

After that, it wasn't too hard to persuade him to enter it. Then it was simple to switch on the gravitors and rise into the dark sky. Morrow had him planted in the flight engineer's seat, enthusiastically demanding explanations in full, as Smitty piloted them swiftly homeward.

Foster was sold!

THEY held a conference in the sawmill-workshop that lasted all the next day and well into the next night. Then Foster went home to tell his wife he'd had a hurry-up call from the aircraft plant and gone there to work on some secret research; they drove him back to Sacramento in the truck, and let him off near his house.

Then they returned to the workshop and went to work.

The following weekend, Foster drove up in his own car to see them. He climbed out of his car wearing lace-boots and hunting clothes. Reaching into the back seat, he brought out a shotgun and a stack of newspapers, then Morrow came up to greet him and they strode into the workshop.

"You fellows have really been hitting the ball!" Foster exclaimed, as he stopped and gazed at the small, needle-nosed ship sitting beside the larger ship.

Morrow nodded. They had worked

night and day to construct the second, smaller ship—a little two-passenger job with sweptback fins and a canopy-covered cockpit in its sharp nose. It rested neatly on its long A-fins, poised to hurtle into the sky. Its color scheme—dark blue-black on top, light gray on its belly—stood out in sharp contrast to the solid, shimmering black of the giant ship behind it.

It had been Foster's idea. He'd pointed out to them that they needed a smaller experimental model, easier to dismantle and rebuild, for the development of their air-jet chamber.

"Have you given it a test-flight yet?" Foster asked.

"Ran it out last night," Smitty replied, coming around the two ships to meet them. He set a plumber's blowtorch on the workbench and wiped his hands on a rag. "It hit seventy miles an hour, then worked up to seventy-four after a five-hour run."

Foster shook his head in puzzlement. "That's something I just can't account for. A jet-pod ought to be just as efficient as its design, and nothing should alter its basic performance other than a change in atmospheric conditions."

"There was no atmospheric change," Morrow said. "Same altitude, same barometric pressure, same thermal conditions. I'm beginning to think the problem isn't only in the jet-pod design."

"That makes two of us!" Foster agreed. "The design I gave you should've worked better than any seventy miles an hour, if your propulsion unit develops that focus of 'false gravity' and squeezes the air out, forming a low-pressure center, as you said it did."

"We've checked that, too," Morrow said, frowning thoughtfully. "I'm beginning to think it's something to do with the gravitors' field of influence. Come over here—I want to show you something!"

He led the jet engineer over to where he and Smitty had rigged a gravitor mechanism and a sling-load of sandbags with rope attached, just as they'd used in weight-testing the gravitors. He switched on the gravitor, adjusted its setting, and let it lift the load of sandbags into the air. Then he pointed to the rope dangling down beneath it.

"See that twist in the rope, just under the sandbags?" he said. "That much of the rope is in the influence of the gravitor's field, which is cancelling out the pull of the Earth's gravity. Now then, if it can influence that three-foot length of rope, what influence might it have on the air around it—and on the slipstream of air flowing over our ships, which is supposed to enter the air-vents and be blasted out the jets for propulsion of the ships?"

"It could be scrambling our intake flow," Foster acknowledged pensively. "But would that condition alter in time?"

Morrow shook his head. "I don't think it does—or that it would unless the gravitor's batteries were almost burned out. Then the field's influ-

ence might lessen a bit. Otherwise, no."

"Then why is it that the jets' efficiency increases with time?" Foster asked. "How'd you get seventy miles an hour on the big ship, then ninety? And five hours' running built up the little ship's speed an additional four miles per hour, didn't it?"

Smitty nodded. "It gets gradually better—but not much. If we knew how it happened and what it was doing to the air-flow, maybe we could design jet-pods with the right shape to use that air-flow and get good performance."

Foster turned and peered sharply at Morrow. "Bill, doesn't that gravitor's field work by conductivity of some sort through the surrounding material?"

"Uh?" Morrow started. "Yes, it—wait! You mean the ship's plastic hull?"

"Right. And what about the polarization of that plastic?"

Morrow pursed his lips, contemplatively. "Like all materials on Earth, it's polarized—if you want to use that word—to the gravitational and magnetic fields of Earth. I see what you're driving at, though—the gravitors establish a field in which the Earth's gravity and magnetism are cancelled out, or bent back upon themselves. The mechanism of the gravitors, the hull they support, everything within their field of influence is placed on a basis of its own gravity, mass-attraction, magnetism, what-have-you."

"And that's gradually changing the polarization of those materials," Foster concluded. "And the gravitors' field, working through the material, is also affected. There's a gradual change in its influence on other surrounding matter—and on the slipstream flowing over the ship!"

"We'd need a wind-tunnel to test that, wouldn't we?" Smitty asked dejectedly.

"Yep," Foster agreed. "And wind-tunnels cost money. The only other way to test it would be to make a cross-country flight, and I wouldn't advise that."

"What about a cross-country night flight?" Morrow wondered.

Foster gave him a strange look. "You two haven't been reading the newspapers lately, have you?"

MORROW and Smitty exchanged glances of mingled surprise and guilt. "We've been rather busy out here," Morrow protested lamely.

"I suspected you were," Foster said, a trace of grim humor in his voice. He walked over to the drafting table in the corner, where he'd left his shotgun and bundle of newspapers. "Pull that thing down and come over here," he told them. "I've something to show *you*, now!"

Morrow cranked the gravitor-sling down on the hand winch and Smitty shut it off; then they went over to where Foster was spreading newspapers on the drafting table, checking and circling columns of newsprint with a blue crayon pencil. Morrow stepped to his side and stared down at the papers. The words fairly

leaped up to strike him in the eye.

MYSTERY SHIP NEAR SACRAMENTO
BLACK SPACESHIP SEEN
MARTIANS PREFER CALIFORNIA!
TWO CARS LEAVE H'WAY AS ROCKET SWOOPS
BLACK ROCKET SHIP; 'NOT OURS,' SAY AIR FORCE

There were more than a dozen news stories about it—not front-page, black-headlines stories, but two-column stories beginning on page two or three and continued in the newspaper center-section. None of it was spectacular enough to merit big headlines.

However, it had obviously been given a thorough coverage by the press. A railroad worker walking to work the Saturday morning of their trip to Sacramento had seen "a black, torpedo-shaped ship flying through the mist at low altitude, making a deep, rumbling noise." A police patrol car on the highway had seen it "flying low through the clouds, as if it were having mechanical difficulty of some sort." Two cars had left the highway and skidded into a ditch as both drivers saw "a black ship without wings swoop directly over" with a sound "like one long, continuous A-bomb explosion!"

Some said the ship was just a solid black shape, without lights or any noticeable features except the absence of any wings; some said "a long, blue flame" came from the tail of the ship. Some said "bright red, green, and blue lights were swarming around it" and some claimed there were "big windows in the sides, with something moving around inside."

Officials of the Air Force, both in California and in Washington, professed to have no knowledge about the ship. But one fact was added: both official groups said they were deeply interested in the reports for "reasons of security," that a thorough investigation would be made, and that radar surveillance along the West Coast would be intensified.

And one, final news story was headed: SEARCH FOR DOWNED 'SPACESHIP' FAILS. There had been strong belief, it said, that the mysterious black ship had been in trouble and was making a forced landing when it was sighted.

"There it is," Foster said with a tone of finality. "These are all the stories in the local papers. It's been played up from coast-to-coast, however—both in the newspapers and news telecasts. And the defense forces along the Coast are just waiting for you to pop out again so they can pounce on you."

"Along the Coast," Smitty echoed pensively. "It's significant that they haven't turned their attention to the interior—back as far as the Sierras, here—"

"Probably think it's some sort of new Russian reconnaissance aircraft," Morrow interjected. "They undoubtedly have a nice, little reception committee waiting out over the ocean."

Smitty nodded. "Any cross-country we plan to do had best be plotted

due east, across the desert."

"There's the atomic project area, that way," Foster protested. "They certainly must have increased their air defenses around that."

"At low altitude, we can get around it," Smitty said.

Foster's features went slack. "Look here! You're not seriously thinking of—"

"If we had a wind-tunnel, no!" Smitty retorted wryly. "We could stick the little ship in it, let it run for a few days, watch the hull polarize itself to the gravitors' field, and note how the air-flow around the ship was affected. Then we could rip out the jet chamber and design a new one that'd work in the affected air-flow."

"*If* we had a wind-tunnel," Morrow emphasized.

"Right!" Smitty turned back toward the ships. "So," he concluded, "we take the big ship! We head out over the desert and keep going, watching how the ship performs and what the air-flow does to her. We'll have to install a few barometric pressure-point indicators around her hull—"

"But we'd have to fly several days steady to get that hull completely polarized," Morrow said. "We can't just restrict ourselves to night flying."

Smitty winced. Then he rubbed his chin, scowling. "If we have to, Bill, we can go east to Utah, then south through Arizona to Mexico, then east again—flying across the Border at night, without lights, won't be too much trouble; and once in Mexico we won't have to worry about radar. We can go out over the Gulf of Mexico, if we want to, and then turn north and fly up the Mississippi and Ohio valleys as far as Pennsylvania. There's a lot of brush country in the neighboring mountain areas—there'd be little danger of getting seen through there. So long as we don't have to land anywhere, we're safe!"

"In other words, it'd be a cross-country endurance flight," Morrow surmised.

"But suppose the ship fails on you?" Foster demanded tersely. "Suppose you're forced down?"

"We're visitors from outer space!" Smitty replied, grinning.

Foster wasn't amused. "Let's not be foolish about this," he argued. "We've got something here that we can't let loose! The world isn't ready for it—"

"But we've got to have it perfected when the world *is* ready," Morrow said firmly. "Once the tension wears out and the world situation changes, we've got to act! If we aren't ready, the world will go right ahead and get mixed up in some other squabble. Then we'd have to wait again."

Smitty laid a hand on Foster's shoulder. "You can get a few days off from the plant, can't you?"

"What? Well, yes," Foster stammered. "Of course! But—"

THEY took off at noon on a cloudy winter day.

They spent the afternoon dividing

their attention between the test-flight instruments and the surrounding sky. They hadn't the money to afford elaborate recording mechanisms to graph every moment of the flight onto neat tape-spools; they had to rely on the human eye, the questionably analytical human mind, and the servo-mechanism of a human hand wielding a pencil on a loose-leaf notebook. And they constantly expected to see a razor-winged jet fighter hurtling down from the stratosphere above them, its cannon sparkling the bright flame-color of death.

They didn't talk much that afternoon.

They took turns at the controls and eating until each had consumed his dinner, then gathered tensely in the control pit as the ship bored rumblingly into the black night. Ahead of them was the Mexican Border. Below them and around them, almost scraping the ship's belly, as low as they were, was the jumbled, boulder-strewn Arizona desert bathed in frosty white moonlight. Above were the cold, twinkling stars, the black heavens—and who could tell what radar-equipped night fighter poised above them, ready to peel off and plummet downward, guns blazing—

Then the Border was behind them. They took turns at the controls and instruments again, catching a few winks of sleep between turns. Morning dawned, and they approached the Gulf of Mexico.

Morrow checked their supplies—food and water for the trip, parts and materials stowed in the spacious cargo deck for repairs on the ship if necessary—and they took turns at breakfast. Then he and Foster sat down to an argument about the scientific implications of the gravitors. Foster was of the opinion that Einstein's theory no longer was valid, that Milne's work came closer to the truth but was still vague. Morrow thought differently, and they argued together amicably.

Noon passed, and they were over the green expanse of the Gulf. Smitty called their attention to the short-wave radio. The newscasts were quite interesting.

A professional hunter in Nevada, hired to exterminate a mountain lion which had been slaughtering a rancher's cattle, was surprised when a ship that looked "like a big, black whale" thundered over his head and plunged down behind a nearby ridge. The hunter rode hastily around the ridge, expecting to find the wreck, but the ship had vanished completely "as if the ground up and swallered it!"

A Greyhound bus proceeding across Arizona nearly swerved off the road when "a long, black torpedo at least a hundred feet long" came across the sky "so fast the air thunderclapped behind it" and left "a trail of blue fire" behind it. Passengers on the bus verified the driver's story, with some minor variations.

Two farmers standing in a field in northern Nebraska saw a flight of six "fish-shaped" objects go over, each having a shadow "big as a barn" on

the snow.

A noted banker in Chicago created an uproar when he reported seeing "a giant, black shape" rise from the waters of Lake Michigan as he was driving home in the afternoon.

An amateur astronomer in Alabama reported sighting a "strange ship" rising upward from the Earth's atmosphere "on a pillar of rocket fire." The ship had mysteriously disappeared "as soon as it left the atmosphere," the middle-aged hobbyist stated.

A Swedish Air Force jet-pilot claimed he had sighted, given chase, fired at, and seen his tracers bounce harmlessly off a "black, fish-like craft" flying at 40,000 feet above the Baltic Sea.

The news commentators added, in significant tones, that no airline pilots had yet reported seeing such craft. One added somewhat caustically that due to previous experiences the pilots probably wouldn't report anything to the authorities even if they did see anything, since the authorities persisted in treating such reports and the pilots who made them with painful ridicule; the commentator then launched into a condemnation of the current Administration.

"It would seem," Smitty observed from all this, "that we are quite famous!"

"'Notorious' is the word. I believe," Foster countered drily. "If this keeps up, some congressman is likely to introduce a bill providing that the government produce some Martians with black spaceships. The voters will demand it."

"It's good disguise for us, anyway," Morrow mused.

"Uh huh!" Foster grunted in reproof. "Unless we're found out, that is. If the public discovers that we've hoodwinked 'em and there aren't any Martian immigrants at all, they'll probably howl for our blood! I think this is going to develop into a scare-issue, Bill. I'm afraid people will want it, as an excuse to work off some of their nervous tension."

"Fine!" Smitty said grimly. "If anybody's trying to catch us, a general scare-issue will have 'em looking all over the place. We're already supposed to be in Nebraska, in Lake Michigan, in the Baltic Sea, and somewhere out in space!"

"Invisible, too!" Morrow laughed.

THEY passed over Louisiana in the early morning and proceeded northward up the Mississippi valley. Indicated airspeed was two hundred and thirty-eight miles per hour. Dawn was blanketed in a pouring rain. They turned off up the Ohio valley and reached the Allegheny Plateau in West Virginia, flying by instruments, topographical maps, and radio omni-range navigation.

And once they almost blundered straight into a big, six-engined commercial stratoliner. The stratoliner pulled up almost at the last minute.

By mid-afternoon, they were approaching Pennsylvania. The drizzling rain had changed to snow and sleet. Then they were forced down. The ship's airspeed fell off

with an alarming suddenness. Then the entire tail structure took on a heavy load of ice.

They settled tail-down into a clearing on a densely wooded slope. The ship wallowed deep into the soft, slushy snow.

The three men got together over the table in the forward lounge. Foster kept running his hands through his hair, nervously. "We're stuck," he said. "We're stuck here for the winter unless we can rebuild the tail assembly. That jet chamber has to be changed."

It was obvious, after they had diagrammed the readings from their various flight-test instruments. The ship's hull had become completely polarized to the gravitors' field; the field influenced the air flowing over the hull, so much so that a simple air-scoop couldn't pick up air to blow through the propulsion unit and out the tail-jets. The air intake had to be designed to work on the disturbed airflow.

"It's a little like those 'space-warps' in science-fiction yarns," Foster explained. "There's a warp of the gravitational and magnetic fields around the ship. The airflow entering that warp bends and twists to follow it."

"We ought to redesign the entire hull to comply with that warped airflow," Smitty suggested absently.

"The hull doesn't matter so much," Foster contradicted. "We could design it in any shape, though a sharp nose and thin guide-fins are still effective. You just happened to hit the right answer when you placed the control-surfaces forward on the nose of the ship."

"Talking isn't going to get us out of here," Morrow remarked grimly. "Let's get to work on that tail assembly."

"I got news for you!" Smitty muttered. "If we rebuild the tail with our power-tools, it'll use up the juice in our batteries. We won't have enough to get home."

"We must get our batteries recharged, then," Morrow said. "Will we have enough juice left to get out of here when we're finished?"

Smitty nodded. "And then we'll be up a creek. Where do we get our batteries recharged?"

"Couldn't one of us venture into a town around here and buy a few batteries?" Foster suggested. "Without wearing our Martian costumes, of course."

"Our Martian costumes as you call 'em are at least warm!" Smitty retorted. "It's a little cold to go wandering around out there in our coveralls."

"Wouldn't pay to risk it, anyway," Morrow said. "Suppose someone has seen our ship flying around here? Suppose they make a report that brings in the authorities and—"

"But who'd think a man in coveralls just stepped off a spaceship?" Foster persisted.

"Un huh. You have a point, there. But if the authorities were investigating, they'd check railroad and truck shipments of any plastic or metal aircraft construction materials

into this region, and where they were delivered. They'd check local machine shops, auto-parts shops, aviation parts dealers—and *they'd check garages!* If on of us walks up to a garage, buys a battery, and walks away carrying it on his shoulder, don't you think the garage mechanic is going to remember him, what he looked like, how tall he was, what he weighed? How often does anyone without a car buy an auto battery and carry it away on his shoulder?"

"We might 'borrow' somebody's car," Smitty mused, grinning.

"We might be caught ten minutes afterward, too," Foster objected. "The police are quite efficient at catching car thieves."

"Then we need a car," Morrow concluded. "Smitty, can we lift out of here once we've rebuilt our jets?"

"We could travel a few hundred miles," Smitty conceded. "Not that it would get us anywhere."

Morrow grinned crookedly. "Would it get us to Westerton, New Jersey?"

It would. And the next night, it did.

THE three men crouching in the control pit of the sleek, black ship looked red-eyed and haggard from fatigue and lack of sleep. They had stripped off their shoes and socks to let them dry near the ship's heater, and their damp, mud-stained coveralls were drying on their bodies. Foster had developed a wracking cough and his nose was running.

The airspeed indicator registered three hundred and sixty-eight miles per hour. Smitty stared at it, glumly. "Let's just hope it doesn't fade out on us again," he muttered.

The test of the ship's performance had been the whole purpose of their long, cross-country trip, Morrow thought wordlessly. They had made every preparation they could think of for the trip. Each had a special suit with helmet and gravitor-tank—and one additional feature: a one-man propulsion unit. They'd developed that in the workshop when they ran one of the suit's gravitors until its field had completely polarized the suit; then, when the suit was suspended high over a small wood fire, the smoke from the fire had risen up into the suit's gravitor field and twisted and swirled around to conform to the warp of that field. Knowing those twists and swirls, Foster had designed a small jet unit with air intake slots and jet-pipes which utilized the airflow through the gravitor field.

Of course, there was one fault in this jet unit: it was designed to use the airflow around a gravitor standing still. With the gravitor in motion, that airflow was altered somewhat. But when Smitty had floated up in his suit with that little jet unit built into its tank, he had managed to fly around the sawmill yard at a good fifteen miles per hour. The air drag against his legs, since the gravitor made him weightless, was considerable—it flattened him out in horizontal flight and, by swinging his legs from one side to the other, he

was quite capable of controlling the direction of his flight. The lift or descent of the gravitor sufficed for climbing or diving maneuvers. He'd looked like a human fish swimming in the sky.

For the ships, of course, such a jet unit wouldn't do. The ships needed jets which would work while in motion, at speeds exceeding a hundred miles an hour. Thus, they'd had to fly the ship until its gravitors completely polarized its hull. Then they had to determine the airflow over that hull at flying speeds with flow and pressure indicators mounted on the hull. Then they had to rebuild the tail-jets to conform with their findings.

A flight half-way across the continent and back to their workshop would have served for that. But then, they had to be sure that there was no further change in the airflow or polarization or gravitor field. For that reason, they had decided on this trip all the way across the country. It would give them a complete, thorough test of the ship.

They had even gone so far as to arm themselves for defense, in case they were forced down anywhere and someone tried to get rough with them. In a strictly legal sense, the streamlined plastic pistols they carried were not lethal weapons.

Technically, those pistols were ray-guns. They fired a beam of light.

That light came from a standard photographer's flash-bulb. It was focused into a tight, narrow beam by the pistol's barrel reflector. It wouldn't penetrate the human skin; it wouldn't even raise a blister. It was almost physically harmless. But directed at a person's face at a distance of no more than twenty feet, it would leave them totally blind for about three minutes. A simple flash-bulb delivered a nice, bright flash.

A person suddenly struck blind wasn't likely to be in any condition or mood to cause trouble.

All other preparations for the trip had been as completely thorough, as carefully planned. Yet they had made one slight error. They had forgotten to include extra batteries for the ship. In all their careful and intricate preparations, that one, simple precaution had been overlooked.

And now, because of it, Morrow wondered if the whole purpose of their trip wasn't going to be changed. They were flying to Westerton where he would borrow a car from someone he knew.

The one person in Westerton he felt he could trust more readily than others was, of course, Gwyn Davidson. And Gwyn's father had a car.

But they couldn't land their ship anywhere near town, where he could go directly to Gwyn. They would have to land some distance from town, at a spot he knew quite well, and he'd have to proceed from there. He couldn't hitch-hike into town; people knew him, would recognize him and ask questions. He'd have to fly in on his suit gravitor.

And when Gwyn saw that, he'd have some explaining to do. He wondered what she would think. . . .

He wondered, too, at the thrilling tingle of excitement which was washing through him in waves of—of ecstasy, almost! There was no other word for it! He felt like a kid with his first toy.

The ship glided down through the cold moonlight and grounded behind a thick screen of trees, hidden near the shore of a small lake. Across the glistening, ice-covered lake, the sprawling log structures of Lakeshore Lodge loomed blackly against the snow glare. The buildings were deserted, uninhabited during the winter.

Morrow remembered it during the summer season, alive with people in bathing suits, and small boats out on the lake, and this small clearing behind the trees where they landed, where he and Gwyn had sprawled on a blanket, sunning themselves. He remembered the spot quite well.

Westerton was twenty miles away.

HE was numb with the shock of the cold air and the weird experience of his flight when he approached the town.

It felt so damned strange! He was flying at about four hundred feet, sprawled flat with the wind blowing and buffeting over him. His head was protected by his helmet, of course, and he was only doing about fifteen miles an hour—but the weightless condition of his arms and legs made it feel as if he were battling a sixty-mile gale! And using his legs to guide his flight completed the impression: he *swam* through the air!

The yellow lights of town began to outline the streets and intersections below him. Never having seem them from the air, they were at first strange to him, unrecognizable—then he got his bearings and flew onward. Or swam. His breath was coming in labored gasps. His whole body was tensed against the cold seeping into his suit.

He searched frantically for Gwyn's house. It was after two in the morning; she'd be home asleep now.

He spotted it, flew over it, and cut his tiny jets. Then, tuning down his gravitor, he drifted gently downward until his feet crunched in the snow in the small back yard. Looking up, he saw with a start that he'd just barely missed straddling a telephone wire on his way down.

Shivering, he strode toward the house. It was a two-story, white frame structure and Gwyn's room, he believed, was on the left side upstairs. He went around to the side of the house and looked up at the windows, puzzled. Which was hers?

It wouldn't do to try to scramble in a window, anyway. Gwyn would probably let out a scream that would awaken the whole neighborhood—or her father might take a shot at him!

Better to do it the conventional way. Knock on the front door. Ring the bell.

Should he take her father into his confidence, too? Morrow decided against it—no point in stretching his luck too far.

Then he had to get Gwyn out of the house. Alone.

Morrow shook his head, grinning wryly. This was getting more like a kid's game all the time! Then he shuddered. It was cold as blazes! He had to get inside and get warm!

He strode purposefully around front, went up on the porch, and rang the bell. A good, long ring. Then he jumped off the porch and ran back to the side of the house.

A light flashed on upstairs. A shapely, feminine silhouette passed across the curtains as Gwyn crossed the room, pulling on her housecoat.

Morrow stepped close to the wall, tuned up his gravitor, and rose easily up to the window. He grabbed the sill to stop himself and peered in. The room was empty. The window was raised slightly.

He pushed it up, scrambled in, and lowered it behind him. The room was small and neat, littered with feminine knick-knacks, and smelling more clean and polished than sweetly perfumed. He strode past the rumpled bed and sat down in the chair against the wall, out of sight from the doorway.

His gravitor tank kept him well-forward on the edge of the chair. His suit remained ice-cold and snug in the room's warmth, which he felt seeping in through the vents in his helmet collar. He shuddered violently, then sucked the wonderfully warm air into his lungs. He gazed around, noting that his helmet gave everything in the room a bluish tint, but he was so accustomed to that he didn't mind it. Then he saw himself in the dressing-table mirror, across the room, and almost doubled over with silent laughter.

What a strange creature he was, with a shimmering, bright skin and a huge, dark globe of a head!

Gwyn would scream her lungs out!

He reached up hastily, broke the clamps on his helmet, and swung it back. Best to let her see his face, first, and recognize him—

A door opened out in the hallway.

"Who is it, Gwyn?" Old man Davidson's voice had the mellowness of a concrete mixer.

"Nobody, Dad!" Gwyn's voice came from downstairs, puzzled. Small feet stamped on the stairs. "It's awfully cold out for anyone to be playing pranks. When I opened the door, there was nobody out there!"

"Well, go back to sleep, honey."

"All right. 'Night, Dad."

The door closed in the hallway. The small footsteps trod disconsolately toward Gwyn's door.

Then she was swirling into the room, closing the door, and pulling the housecoat off over her blue, pink-flowered pajamas.

When she saw him, she froze and sucked in her breath.

"Bill!"

It wasn't a loud exclamation, but a faint, weak cry. Morrow had his finger over his lips, motioning her to silence.

Her face went blank; then she tugged her housecoat frantically back on and strode over to him. Her voice was a low, insistent murmur. "Bill, how did *you* get in here? What *is* this, anyway?" Her wide eyes were

sweeping over him from head to foot, unbelievingly. "What on earth's *happened?*"

"Sit down," Morrow said gently. "Keep your voice low. Can't let anyone know I'm here, Gwyn—and I need your help!"

GWYN looked at him steadily for a long moment. Then she said, with a kind of silent protest, "All right, Bill. I'll get Dad's car out and go with you. Now—how are you going to get out of here?"

"Same way I got in," he told her, quietly. "I'll meet you outside."

Then, before she could protest, he strode to the window, raised it, climbed out, and shoved free—using his gravitor, of course, as he did.

She stared at him from the window until he touched ground. Then he waved to her and went around the house to the garage.

She came out a few minutes later, dressed in a warm, woolen suit.

Morrow explained the project to her as they drove downtown. When they got out on the highway, approaching an all-night garage, she dropped him off. A half-hour later, she was back.

"Got the batteries?" he asked, piling into the front seat beside her.

"Yes, I got them," she said.

They drove on out to Lakeshore Lodge.

She was grimly silent all the way. No questions, no comments whatsoever. She kept her eyes straight ahead on the highway, her face expressionless and a little pale in the passing lights.

She doesn't like it, Morrow thought bitterly.

But if she didn't like it, why didn't she say so? Did she think this female silent treatment would work on him? Gwyn should know him well enough to realize that such typically feminine maneuvers always have the opposite effect of what they were supposed to have on him. Silent disapproval, huh? Then the devil with her!

But such obvious deceit wasn't like Gwyn, either, he realized. Maybe it was something else, then.

Maybe she had gotten the idea that he didn't want her opinion. Suppose she wasn't asking questions because she thought he didn't want her to ask anything!

Possible, he thought. Even probable. He might have overdone it when he tried to impress her with the need for absolute secrecy. Maybe she thought he'd merely come to her because he needed help, that she wasn't included in the project itself—

But *was* she?

Morrow realized, then, that he wanted her to come back with him. Back to California, to the workshop—

What would the others say about that?

And did he want to expose Gwyn to the sort of risks they were taking?

They drove up to the Lodge and parked. "I'll have to take the batteries in one at a time, I guess," he said dourly.

"Where?" She seemed to rouse herself out of her own thoughts.

Morrow pointed across the lake. "The ship's over there, beyond the trees. Remember the place?"

"Oh!" she exclaimed softly. He couldn't see her face in the darkness.

"I'd better call them," he said, opening the car door. He stepped out into the snow, straightened up beside the car, and swung his helmet over his head. There was a tiny, pocket-sized walkie-talkie built into the helmet collar under his chin; he flipped its switch and waited for the set to warm up.

Then he began calling quietly. "Angel One to Cloud Two. Angel One to Cloud Two—do you hear me? Come in. Over."

"Cloud Two to Angel One," Smitty's voice was a tiny, metallic sound inside the helmet. *"Hear you faint but clear. Give your position, over."*

"I'm at the Lodge," Morrow replied. Gwyn was watching him, wide-eyed. "The girl is with me. We've got the stuff. I'll have to bring it one at a time to you, over!"

"Angel One, are you observed? Repeat, are you observed? Over."

Morrow scowled in puzzlement. "Nobody here but us chickens," he quipped back. "What're you driving at, over?"

"Do not attempt to bring stuff here," Smitty's voice taunted him. *"You might drop something. Remain at your position—we'll come there!"*

Morrow's mouth went slack. Of course! He should've thought—

"Cloud Two to Angel One! Acknowledge, please. Over."

"Okay, guys!" he snapped. "Roger, wilco, over and out!" He switched off the set, angrily.

But what was he angry about?

He wasn't sure. Something was wrong, somewhere. Somehow, things just weren't working out right.

"They're—coming here?" Gwyn asked hesitantly.

"Sure," he retorted, his tones unnecessarily brusque. "They're coming here."

"Oh." She gripped the steering wheel and stared ahead, not looking at him.

"Gwyn—" Morrow started around the car, around to her side to open the door and lift her out—

A faint, whining sound came from above as he reached the front of the car. He stopped and looked up, startled.

The sleek, black ship settled down to the white snow before them. A sort of strangling gasp came from Gwyn, then she was out of the car and standing beside him, clutching his arm tightly.

The thick door swung open on the faintly gleaming hull. A figure in bright, snug garments, with a dark globe of a giant head, floated out of the door and came gliding toward them. It swung its legs down and settled to a crouch in the snow in front of them.

"Well?" the strange, dark globe-head drawled. "Don't I rate an introduction?"

THE batteries were installed. The old ones they replaced were stored on the cargo deck to be recharged

when the ship had returned home.

The forward lounge was bright, warm, and cheerful, with the ultra-modern interior fittings and deep, foam-rubber chairs and the moonlit snow and trees outside the long port-holes slits. Gwyn sat between Smitty and Morrow, holding her cup out for Foster to pour her coffee. Foster poured with a deft flourish. He had his jacket tied around his waist as an apron.

"I've always maintained," he observed with mock seriousness, "that the woman's touch is absolutely essential to the success of any project attempted by man!"

"Quite true," Smitty agreed, going along with the gag. "Though I'm not a lace-curtains man, mind you. Just lace." He grinned wolfishly at Gwyn.

"Being a married man, myself," Foster went on, pouring himself a cup of coffee, "I have so accustomed my tastes to minor discrepancies as practiced by the fairer sex that I'm no longer disturbed by such. Nylon stockings and underthings hanging all over the bathroom, for example. As one gets used to that sort of thing—"

"Hear, hear!" Smitty chanted.

Foster sprawled in a dignified pose in the chair facing them. "As one gets used to it," he continued unmindfully, "it fades to its proper insignificance. Then a man can truly visualize the worth of feminine companionship—the slippers, the evening paper, the scratching of one's back—"

Gwyn was laughing. The tension was going out of her shapely, young body. Her gaze was mirthful, speculative—especially when her glance slid over to Morrow.

"One finds," Foster went on, "that the prime essence of—of—"

He broke off with a violent sneeze.

Morrow finished his coffee, set his cup aside, and rose. "We'd better take off," he said flatly. He turned and faced them.

Smitty and Foster were looking at him with a silent reproof. Gwyn's eyes were on the floor. She set her cup aside, untouched.

Morrow returned their look without expression. Something danced and giggled and rolled, hugging its sides with laughter, inside him, but he kept it off his face.

"Gwyn!" he said. His tone was sharp, insistent.

She stood up uncertainly. "I'd—I'd better be getting home, too," she said.

"Right." He nodded. "We've got to get off before sunrise catches us—we'll be safe over the Pennsylvania brush country."

"All right." She moved toward him, toward the bulkhead door at his back.

He reached out and touched her shoulder, stopping her before him. "When we get back, I'll write you," he said gruffly. "Meanwhile, you can be straightening out your affairs here, and—in a couple of weeks or so—"

She looked at him, then. Eyes wide open and shining, lips parted.

"Well, don't just *stand* there!" Smitty bellowed indignantly. "Go on

and *kiss her!*"

IT was hardly a month later when Morrow stood in the doorway of the sawmill-workshop, his arm around Gwyn, and said, "We need a good mechanical engineer! Can't get anywhere without him—"

And a small, gray-haired man sat up in bed, a few nights later, and stared at the two strange creatures standing before him. Their heads were dark, featureless globes. Their bodies were covered with a bright, shimmering skin. He noted vaguely that the female of the species was stacked quite well.

"Can't do anything without a good structural engineer!" the little man snapped angrily, a few months later, as they were standing around a littered workbench.

A slender, middle-aged woman stepped off the bus and walked up the quiet, dark street toward her home. Then she froze, a scream stuck in her throat, as several weird creatures came swarming out of the shadows. . . .

A Northern Airlines pilot glanced out at the port wing of the giant, humming stratoliner. His mouth fell open, then he grabbed his co-pilot's shoulder and pointed out toward the wingtip.

Two sleek, fishlike little ships were flying perfect formation with the big plane, their black silhouettes outlined sharply in the warm summer moonlight.

An Air Force pilot rode his powerful, deadly jet-fighter across the desert country, thinking of the wife and children waiting for him in Los Angeles. Suddenly, he tensed, staring over the side. Far below, a black shape was outlined against the gray earth.

Quickly, the pilot radioed his flight h.q. and fired his guns, blasting their muzzle-covers away. Then he peeled over into a dive and went screaming downward. The black shape appeared on his sights, his thumb pressed the fire-button—no time to set up for auto-fire—

And then, the black shape was gone!

The wind stopped screaming around the little ship as Smitty cut its gravitors back in, halting its helpless plunge. He pointed its needle-nose up the black maw of a deep canyon and glanced upward, grinning as he thought what must be going through that jet jockey's mind. *Which way'd he go?*

Just let 'em try following a "spaceship" through one of these twisting canyons! At a jet-fighter's thousand-mile-an-hour combat speed, just let 'em try!

But, as Morrow discovered, a helicopter could follow anywhere. It wasn't when he and Gwyn drove into Stockton to get married, but later, when they were playing follow-the-leader in silvery wonderland of clouds under a full moon. He and Gwyn wore gravitor-units strapped to their backs, with the harness incorporated into a swim-suit attire, without helmets or any other garments. It was a warm summer night filled

with cool breeze that caressed their skin as they circled and skimmed over and around the bright masses of cloud.

A civilian pilot riding his little ram-jet heliocopter southward toward 'Frisco saw them gliding around the clouds at approximately the same moment Morrow caught sight of him. The 'copter gave chase. Morrow and Gwyn parted, trying to confuse the pilot, but the 'copter swung on its whirling blades and went after Gwyn. Its speed was greater than hers and it was rapidly overtaking her—the pilot jockeying it into position so its blades would strike her. Apparently, the pilot had a morbid sense of humor.

Seeing this, Morrow swung back, intercepted the chase, and swooped low under the 'copter, trying to unnerve the pilot. But the pilot merely waved at him and laughed, shouting something about *"Gonna get one of you, anyway!"* that Morrow barely heard.

He circled and dived at the 'copter again, fumbling at his belt. This time, he pulled up to the side of the 'copter's teardrop cabin, stopping himself by slamming both feet against the cabin. Startled, the pilot jerked the controls and the 'copter dipped its blades at Morrow. He had just enough time before cutting his gravitor and plunging free to fire his flash-bulb pistol directly into the pilot's face.

Checking his fall several hundred feet below, he looked up and saw the 'copter wallowing precariously on auto-controls, its pilot pressing his hands over his eyes. Gwyn came swooping downward, her dark hair billowing out behind her, and called anxiously to Morrow—when he fell, she'd thought the 'copter blades had struck him.

They lost themselves in the starry blackness before the pilot regained his sight.

That spring season, the newspapers broke out in a rash of headlines and front-page stories about ships from outer space and life on other worlds, quoting eye-witness reports and authoritative comments. By summer, the latest best-seller book was a loosely-written volume entitled THE MONSTERS ARE AMONG US!

Those fortunate members of a certain group of thirty-seven men and women broke into grins every time they heard the book mentioned. This group had laid out a collective sum of slightly over a hundred thousand dollars for the construction of a small vacation resort in the Nevada desert.

It was a rather special resort. The buildings were built cheaply, yet were designed by certain talented engineers so that their structures were considerably stronger than those of conventional buildings using costlier materials—a not too difficult feat, considering the outmoded building codes which governed most construction—and were surprisingly sleek and ultra-modern, as well.

The members of this group usually continued their work in plants and laboratories outside. Each year, when their vacation-time came up, they

would rush off to a little radio repair shop in Stockton and have a quiet talk in the back room with its youthful proprietor. That night, they would drive up into the mountains to an old, abandoned sawmill, where a strange ship would drop out of the darkness to greet them. . . .

IT was a deep, twisting canyon east of the Kawich Range. Sand-stone cliffs towered up nearly three hundred feet on each side and a spring-fed stream trickled along the boulder-strewn floor, curling around clumps of stunted pine trees and dense brush. The wind sometimes tore through the canyon with a deep, mournful whistle.

Farther up, the canyon widened out. A pile of giant boulders formed an island in the middle of the floor and cliff-dwellers had built their dwellings in a large cave half-way up on one wall. Those dwellings were now occupied and joined by slender spans to the three sleek towers rising up from the island. At the foot of the island, a flat space had been cleared and long, low sheds built around it.

In the middle tower overlooking the clearing, which was now occupied by a slender, black ship, Morrow sat before the observation wall of his living room and gazed downward. He wore a simple pair of trunks on his tanned body, and socks and sneakers on his feet.

The man sitting in the chair next to him was tall, broad-shouldered, and husky. There was a two-day growth of beard on the lean face and the soiled white trousers and shirt looked as though they had been slept in. The man's eyes were cautious and tense when he glanced over his shoulder.

Smitty was standing behind his chair. Smitty wore the same casual attire that Morrow did, with the addition of a cartridge belt and holstered pistol about his thighs. The brown hand resting on the pistol-butt—it was a Colt .45 revolver—gave their visitor silent confirmation to the fact that he was, essentially, their prisoner.

"So it took you just six months to find us, did it?" Morrow asked musingly. "Too bad about the shipping records on those plastic construction materials—you must have traced down the shipments from every company in the country before you found that."

"We traced nearly all of them," the visitor conceded. "In fact, this one would've escaped our notice if you'd used any half-reasonable company in Stockton to cover up your use of the materials."

Morrow took cigarettes and matches from the pocket of his trunks and proceeded to light up, calmly. It was nearing sunset and the canyon was already plunged into a blue twilight, in which the lights in the towers and on the small landing field below glowed softly, in soothing pastel colors.

The visitor sat unmoved through the silence. He had been caught inside the old sawmill and flown to the hidden base the night before. His

credentials said he was an agent of the United States Bureau of Internal Security, that his name was David Lyle. Morrow glanced at him, speculatively.

"I've told you all I dare about our group, here," he said. "I've told you some of the things we've done—"

"Without explaining them," Lyle interjected wryly.

Morrow smiled. "You wouldn't grasp the technical end of it if I had told you. It's as if I were the first man to invent the wheel and had gathered a few others about me who were now developing the propellor, the fly-wheel, gear-ratios and the piston engine. We can generate enough electrical power in this canyon site to light a large metropolitan city, and we're now working on a means of using broadcast power and perhaps harnessing atomic energy. We already suspect some of the chemical and medical possibilities inherent in gravitor-field conditions—"

"And you have the answer to interplanetary travel at your fingertips!" Lyle muttered dourly.

"Yes, but without the financial means to do it," Morrow agreed. "Interplanetary travel won't be important for another hundred years anyway—if it is at all—since it will take that long for the world's population to reach any dangerous numbers."

"What's that got to do with it?"

"Mankind is due to reach the stage of population where he can no longer feed himself on Earth," Morrow explained. "He simply won't be able to raise enough food on this one planet to feed such numbers. Either that, or there'll be three or four atomic wars in the next few generations—if there's one, there'll be several wars—and population will cease to be a problem.

"There's been some talk of birth-control as the only logical answer to this overpopulation. It may be used, but I doubt its logic. You'll have to tell some people they simply can't have children, and on a world-wide scale you're going to have many cases where they disregard authority and have children anyway. Then, to make your authority stick, you'll have to take those unauthorized children away from their parents and kill them. You'll need a world dictatorship to do that.

"The only answer that's really logical is when this world gets too small to support mankind, go out and settle a couple more. That's where interplanetary travel becomes important, and not before. The astronomers claim there is very little likelihood of any native species of intelligent beings living on either Mars or Venus. I only hope they're right!

"But that isn't answering our present problem, is it?" Morrow grinned reflectively. "We could kill you, Mr. Lyle, but that would gain us nothing. There would be other agents following you. Also, it doesn't sit well with our attitude."

"Just what *is* your 'attitude' as you call it?" Lyle demanded.

Morrow glanced at him through narrowed eyes and replied, "Just what would *your* attitude be if you

were in our position, Mr. Lyle?"

LATER, as Morrow sat alone, Gwyn came out of the kitchen and joined him, perching herself on the arm of his chair.

"It'll work out all right, Bill," she murmured soothingly, running her fingers through his hair. "Don't worry about it."

Morrow shook his head. "We've got to let him go, Gwyn. We can't hold him."

"Then let's just face it," she replied, using her practical feminine approach. "The government is going to learn about our project. What can they do about it? Can they throw us into prison and confiscate all we have here? What'll they do with it? Without us, they won't understand it!"

"How much *will* they understand, I wonder!" Morrow said dubiously. "Will they realize this could ignite the present world tension into a raging war?"

Gwyn looked out on the silent, brooding canyon. "Would it, Bill? I mean—I'm not doubting you, darling—but are you sure?"

Morrow sighed wearily. "No," he said. "Not sure. I'd just rather not risk it."

"Well, if it happens, it won't be our fault." Gwyn slipped her arms around him and settled down in his lap. "Don't worry, Bill—"

It was nearly midnight when Morrow stood down on the field, with the gleaming, black ship looming beside him, and watched Smitty and Lyle, the agent, walking out toward him.

"Finished your inspection, Lyle?" he called out, his voice sharp, brittle.

"Yah. I've finished." Lyle strode up with a thoughtful expression creasing his forehead. "You got quite a lay-out here."

"Thanks." Morrow hooked his thumb at the ship's open hatchway. "Climb in, Boy Scout. We're taking you back to Uncle."

"Ah-hmmm—just a sec, Morrow." Lyle paused, lighting a cigarette. "I've been thinking about that question you asked me—what my attitude would be in your place."

"Yes?" Morrow stiffened warily.

Lyle grinned. "One of the things that surprises me is that of all the people in your group, none has spilled the beans. How come nobody talked?"

"If you had what we've got, would you talk about it?"

Lyle chuckled, flicking the ash from his cigarette. "We're back to attitudes, then—right?" He looked up, his gaze suddenly intent. "I think I've got an answer to your question now, Morrow."

Morrow squinted at him. "What're you getting at, Lyle?"

"Those aircraft construction materials you had shipped to Stockton," Lyle said quietly. "Building an experimental plane without authorization is a federal offense. The fine's five hundred dollars. You got five hundred bucks, Morrow?"

"I think so," Morrow replied cautiously.

"And you got a couple aeronauti-

cal engineers here who could whip up some kind of little airplane, haven't you?"

"Suppose I have?"

"Well, whip up something! Just so it'll get off the ground—put a motorcycle engine in it—and the Civil Aeronautics boys will have something to take their hatchets to. Plant it out at that sawmill of yours." Lyle's sombre eyes were laughing silently.

"So I'll pay a five-hundred-dollar fine?" Morrow asked perplexedly.

"Uh huh. And I can write a report that'll close this case."

"You—" Morrow broke off, staring at the calm, good-natured agent.

"The stuff you've got here is poison to today's world," Lyle said quietly. "Maybe, in time, guys like me can change all that. Until we do—" He left the rest unsaid.

Morrow let his breath out slowly. Then he extended his hand. The young agent's grasp was firm, decisive.

"If you two're through yakking," Smitty growled, shoving past them, "let's get outta here!" He mounted to the ship's hatch.

The two men followed him and the hatch folded shut, flush with the sleek hull. Then, gravs humming, the black ship lifted from the field.

It dwindled rapidly into the upper darkness.

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Bump-Arch had to complete his experiment or spend five more years as an apprentice Scientist — and if successful, his feat would provide plenty of

BUSINESS for the LAWYERS

By Ralph Robin

"TIME," said the Grandmaster of the Guild.

It was the formal word, and the scientists were silent; except Proudwalk, a biologist, who laughed at something whispered in her ear by a physicist named Snubnose, her brother.

"Time," the Grandmaster repeated, and in a moment even Proudwalk was quiet, and Snubnose folded his arms.

"I do not need to tell you that today is the Day of the Candidate," said the Grandmaster, supporting himself with an air of great age on his ceremonial staff of polished copper.

"But he will tell us—in many words," Snubnose whispered now. "Next winter solstice I am going to propose we double the offering."

Proudwalk sniggered.

It was the practice in the Guild of Scientists that a grandmaster, once elected, served for life or until he voluntarily retired. Every year the body formally offered its grandmaster a lump sum to retire. Popular incumbents were offered one tilsin, an obsolete unit worth less than the smallest real coin. Others were sometimes offered large amounts.

This system did not encourage elderly grandmasters to be laconic.

Unnecessarily consulting his notes, the Grandmaster declaimed, "On this Day of the Candidate, the 155th day of the year 1712, Dynastic Reckoning Corrected—"

Snubnose muttered, "Anybody else would say DRC."

Proudwalk patted his lips. "Hush," she said.

"—we are initiating the consideration of the candidature of Bump-arch apprentice physicist in the service of Crookback, a master physicist beloved and esteemed by us all. The candidature of Bump-arch will be governed by the Principles, by the Laws of the Guild, and by Acknowledged Custom. The procedure—"

While the Grandmaster talked, Snubnose pondered the familiar procedure—and some implications the venerable bore didn't concern himself with.

To become a journeyman scientist, an apprentice had to do two things. He had to complete his term of service. And he had to perform on a Day of the Candidate a successful demonstration in his own branch of the scientific art.

The demonstration always took place on the Field of Proof before the whole body. It could be either an original experiment or a "restored experiment"—one reconstructed from fragments of ancient texts. Standards were low and almost anything was accepted, so long as the candidate accomplished what he said he would. If a conceited or, as occasionally happened, a gifted young man attempted a very complicated demonstration, and it didn't come off—well, it was just too bad.

The unfortunate candidate could either serve another five years of apprenticeship and try again, or give up all connection with the Guild. If he left the Guild of Scientists, he could-

n't be admitted in any other Guild.

Which was no laughing matter.

Only journeymen and masters and kingsmen—in the general sense, both men and women—had full rights of citizens, including the right to marry by Public Law. Others might get married by Private Law, but that was a rather uncomfortable method.

Under Private Law, a man and a woman would sign a contract to marry, and if they succeeded in living together—"dwelling under the same roof as husband and wife"—for five years without being discovered by the Public Law police, they could then live together openly. They would then be as legally married as the most respectable members of the Guild of Merchants. But if the Public Law police caught them before the "years of cover" were completed, they were separated and sold as slaves.

Permission of all the parents was required for marriage by Public Law, whatever the age of the lovers. Consequently, even high-ranking guildfolk sometimes took their chances with Private Law, although most who tried it ended their lives threshing rye for the Lords of the West.

For example, Singwell and Grayeyes . .

Snubnose found such thoughts painful. He glanced at his sister and wondered how she could go on looking so cheerful. "But I suppose I look cheerful, myself," he thought. Indeed, he had the kind of face that couldn't look otherwise.

Snubnose followed his sister's eyes to the Candidate's stool; where Bump-arch, Proudwalk's lover and his friend, sat indolently, with his long legs twisted under him.

He wondered what Proudwalk and Bump-arch were going to do.

Certainly they weren't going to get married by Public Law. He winced as he remembered the furious screams of his mother every time Proudwalk brought up the question. Snubnose took his sister's side, but it seemed hopeless to win their mother over. And even if they succeeded, it wouldn't do any good. Bump-arch wasn't going to qualify for journeyman's rank, because he had stubbornly insisted on a demonstration that was sure to fail.

It was a crazy situation, Snubnose thought. Here he himself was a full-fledged journeyman, and here was his sister a full-fledged journeywoman, while a talented fellow like Bump-arch would remain an apprentice or become a guildless outcast. For that difficulty he had nobody to blame but himself, Snubnose reflected, in the virtuous way we meditate upon the mistakes of our friends.

Now the Grandmaster was introducing Crookback, Bump-arch's master, and as late as the previous Day of the Candidate, Snubnose's master as well. Snubnose looked at the old man more affectionately than he had while in his service. But he blamed Crookback for permitting Bump-arch to go ahead with his impossible demonstration. He was puzzled, as usual, by the motives of the old master physicist, born with a bent body and

a clever, enigmatic mind.

A few formal words, a brief joke, and a couple of compliments—and Crookback presented the Candidate.

Bump-arch unwound his legs and stood before them. "Elder ones," he began traditionally, and Snubnose though he caught a quick, impudent look. Bump-arch was young — the three of them were young together in their city and their time—but he was two years older than Snubnose and a year older than Proudwalk. He had started his apprenticeship a little later than was usual.

"I will say the thing. I will attempt the thing. Yours, elder ones, to judge whether the thing is done, whether I am worthy to sit among you." These too were traditional phrases.

"I will construct a chamber," he said casually, "in which I will go irreversibly from today, 155th-1712 DRC, to a day in the future, 155th-1717 DRC. I would be proud to claim this demonstration as my own discovery, but it is not; it is a restored experiment. I follow the directions I copied, while still a boy, from an ancient inscription in a vault outside the walls. The vault was afterward buried by the earthquake."

"And very conveniently too," Snubnose added to himself. Bump-arch had not admitted it, even to him, but Snubnose was convinced that the chamber was his friend's own invention.

"Reverence, elder ones," Bump-arch said and walked to the arched door of the meeting room.

"Time," said the Grandmaster.

Snubnose, rising, heard a conversation behind him, as two master chemists shuffled to their feet.

"Do you think the youngster will do it?" one asked.

"Well, there's a tradition about it," the other said.

"Yes, and there's a tradition about the elixir of life and a hundred texts as well, and you remember what happened to the young fellow who tried to make it."

There was a chuckle. "I remember, and he's not so young any more, and he's the best apprentice I have for washing glassware. Most experience."

Proudwalk had heard the conversation also, and her face turned red. She raised her delicate nose—quite unlike her brother's snub — and sniffed loudly.

"I think I smell hydrogen sulfide," she said.

CARRYING his copper staff the Grandmaster paced to the arched doorway, followed by Crookback. Bump-arch bowed as they preceded him through the door; and he had to bend his head again to pass through, for Bump-arch was partly of Bowman stock and tall for a man of the City.

The masters and mistresses of the Guild, the journeymen and journeywomen, filed out behind the Candidate in the order of their seniority. When Proudwalk and her brother reached the Street of the Scientists, already the kingsman and the godsman had taken their places to the

right and the left of the Grandmaster in the foremost rank of the procession.

The kingsman wore his second gaudiest uniform—the most splendid was reserved for coronations—and carried his silver mace of authority. The godsman was naked, as above display and free of the temptations of sex. He carried nothing, for his nakedness was his badge of office. It was death for anyone except a godsman or a godswoman to be found in a public place unclothed.

There came next the Candidate and his master, and after them by two's the whole body of scientists. Proudwalk and Snubnose walked together, the last pair.

Early in the morning Snubnose had determined to cheer up his sister as much as he could on this unhappy day. Now she walked along so lightly and smiled so much and so gaily, that it was obvious that she needed no cheering. Snubnose was irritated.

"I don't see why you didn't talk him out of it," he said. "He might have listened to you where he wouldn't listen to me. He has the odd delusion that you're smarter than I."

"I am," said Proudwalk.

Snubnose growled.

He said, "You must not care about him as much as you let on, for all your mooning around the gardens. Well, it doesn't surprise me much. You women are all obsessed with family pride, no matter how liberal you pretend to be. Of course you can't marry Bump-arch, whose mother's father was a Bowman. Our—two to the tenth power—one thousand and twenty-four ancestors, all pure City, all guildfolk from the very best guilds, would disturb every palace in Spiritland with their wailing. So now Bump-arch won't qualify, and it will be an easy out for you."

"Snubnose, you know that's not true. But I'll tell you something." She lowered her voice. "I told Bump-arch not to listen to you and to go ahead with his demonstration."

"But why? Even if you are only a biologist, you ought to know from your basic studies that all the best thinkers in physics for five hundred years have regarded time travel as a physical impossibility and all old traditions of time travel as myths."

"Oh little gods. Whatever we can't do any more is impossible and a myth. We just won't admit we are not as good scientists as our remote ancestors. But some of us are as good, or even better."

"By all the gods, big and little, you really do love the poor fellow. He's good, but not that good. What will you do now? Wait till he finishes another apprenticeship and hope mother changes her mind meanwhile? And then he would probably come up with another impossible demonstration. Listen," he said, whispering in her ear, "if you two are thinking of something crazy like Private Law at least let me know so I can help you. I wish father were alive," he added helplessly.

"So do I. He was the only one in our family with any sense. Thanks just the same, Snubnose," she said,

and she pressed his hand.

For a little while he solemnly held her hand, then suddenly dropped it.

"I didn't think," he said. "This is worse than ever. If you really believe that Bump-arch's demonstration is going to work, you don't seem a bit worried about the fact that you won't see him for five years. And another thing," said the young man, "if his physics are right you will be getting old and he will be the same age he is now."

"In five years I'll be an old, old woman," said the girl sarcastically, "and you'll be an old, old man, and we'll sit in the square in the sun and talk about all this. But right now let's quit talking about it, because I see that little Shrill-voice ahead of us there is pricking up her ears."

But she herself said one more thing. "If you're so anxious to worry, worry about the Principles. That's the one thing that is bothering me."

Then they smiled at each other and were silent. And soon a wave of silence washed back to them as the head of the procession turned from the Street of the Scientists, lined with its wind-ruffled oaks, to the open shining Avenue of the Sun, where no person might speak without sacrilege.

The godsman raised his hands to the sun, and everyone else, entering the Avenue, bowed his head.

They marched in silence, formally, humbly, until at the Street of Ward, arms clashed in salute. Here were the apartments of the honorary militia, the warders. The street ran between their dwellings and the city wall. The warders had formed their squads on the flat roofs, and they were happily juggling their polished weapons; more effective for their sparkle and clang, wiseacres said, than for repelling the Bowmen.

During the previous generation, mobile units of the Public Law police had taken over the job of fighting the intermittent wars with the Bowmen. For that reason, as Snubnose knew well, the police would be especially vindictive in tracking down Bump-arch and Proudwalk if they attempted a Private Law marriage. The Public Law police hated anyone with genes of the Bowmen in his chromosomes.

The last squad of warders saluted, and the scientists trooped onto the Field of Proof. It was called in one of the songs of the Guild of Scientists "verdant place where truth doth reign." But the place was only spottily verdant, because the apprentice biologists who were supposed to keep the Field grassed were not conscientious. They spent most of their time in the Ready Hall gossiping with prospective candidates.

Dust rose from large bare patches beneath the copper-tipped shoes of the scientists.

At a sign from the Grandmaster, the guildfolk spread in a single circle. The Grandmaster took his position at the center of the circle with the Candidate, the Candidate's master, the kingsman, and the godsman.

The Bowman strain in Bump-arch was conspicuous, as he stood beside the others. It was marked by his

height and by the unmistakable way the bones of his face shaped themselves. A romantic girl could look at him and think of a noble primitive and fall in love, Snubnose reflected. A family-proud dame could look at him and think of the public slaves—Bowmen captured in battle—sweating and stinking in the building gangs.

"What do I think?" Snubnose asked himself. He shrugged. "Bump-arch is my friend."

He turned to say something to his sister, and he saw that she had left him. While the circle had been forming, she had moved a quarter way around. Now her eyes were fixed on her lover.

Snubnose felt vaguely hurt. He said to himself, childishly, "They're up to something, and they're treating me like a little boy again."

"TIME," said the Grandmaster. And what was time? Snubnose, the grown-up physicist, asked himself that question.

In his physics it was the denominator of velocity; squared, the denominator of acceleration. In old texts—incomplete, variously translated, little understood—it was called a dimension when multiplied by an imaginary number. But imaginary numbers had no place in physics. So it had been decided in 1480 DRC, at the historic conference of scientists, kingsmen, and godsmen. Imaginary numbers, with some other concepts, had been declared metaphysics and had been turned over to the godsmen. Just as neuroses, because of their traditional origin in sexual impulses, had been taken away from the psychologists and assigned to the kingsmen.

Snubnose remembered how Crookback had catechized the pair of them, Bump-arch and him, on the Principles. How did that one go? "Science appertains only to matter itself; not to the mysteries of matter or the desires of matter. The mysteries of matter belong to the gods, and the desires of matter belong to the king."

Or something like that.

He hadn't been quick with his lessons, like Bump-arch. His friend had scoffed at the Principles when alone with him, but had learned them by heart after a couple of offhand readings. Snubnose would sweat and sweat and think he had them, but when the time came to recite, the words would fly out the window into the fresh-smelling air.

Old Crookback had got so disgusted with him once that he had put him on bread and water. And then Bump-arch had sneaked out over the city wall and had caught a rabbit in a homemade trap and had talked one of the women of the settled Bowmen into cooking it for them. Gods, that had tasted good at midnight . . .

The circle of scientists was getting noisy. Snubnose's nearest neighbors were loudly rehashing the latest Private Law marriage. Snubnose wondered suddenly, why didn't the demonstration start? The Grandmaster had said, "Time." Was there trouble?

In the center of the Field, while

Bump-arch stood apart, the dignitaries were carrying on one of those exasperating public wrangles, obvious but inaudible. The godsman was doing most of the talking, waving a plump arm. The Grandmaster looked unhappy, the kingsman looked important, and Crookback looked polite.

The godsman was so excited he absent-mindedly scratched his bare buttock. He caught himself and blushed—a total affair for a godsman—and during his embarrassment, Crookback began to talk. The godsman kept shaking his head and interrupting, but Crookback went on talking, and finally the godsman seemed to give a reluctant consent.

The Grandmaster raised his hand high, with the fingers spread, and a girl apprentice burst from the door of the Ready Hall. She ran across the Field, and two scientists smilingly moved aside to let her through She stood panting before the Grandmaster. He handed her the symbolic messenger's key and spoke to her briefly—briefly for the Grandmaster.

She was off on the run.

Snubnose didn't know what was happening, but it looked as if the godsman had made some kind of a concession. He was sure that must be for the good and felt relieved—until the Grandmaster, leaning on his copper staff, addressed the guildfolk.

The Grandmaster began: "The holy one submitted an objection concerning a possible violation of the Principles and proposed to forbid the demonstration by the Candidate."

If that stood, Bump-arch would probably be tried for sacrilege in Godsmen's Castle. Yet the godsman had seemed to give ground . . .

"Needless to say, both the distinguished master of the Candidate and I myself, speaking individually for ourselves, and, in my own case especially, speaking for the Guild of Scientists as a body, assured the holy one of our reverent adherence to the Principles, and—"

He was interrupted by the angry voice of the godsman.

"Get on!"

The guildfolk buzzed. As often as they might have liked to tell their Grandmaster to get on, this was an insult to the Guild. But they were quickly silent, for it was an insult they would have to swallow, at least in public.

The Grandmaster swallowed it too, visibly gulping, and he said mildly, "The holy one has generously agreed to submit the issue to the High arbiter of the Guild of Lawyers, and the High Arbiter has been sent for."

It was the last thing said that alarmed Snubnose, and he looked at his sister and saw that for the first time her face was tight with unease. The High Arbiter was an old friend of their mother's, which was not likely to make him a friend of theirs today. He moved in the same snobbish society as their mother and had many times clucked with her about Proudwalk's "infatuation for that lowborn young man."

Snubnose would have liked to leave his place in the circle of scientists and join Proudwalk, but it was

against Acknowledged Custom to change position once the circle was formed.

Everyone now was shuffling uncomfortably in the hot sun, except the godsman who was exposed to the cooling air and had the godsmen's secret of escaping sunburn. And Bump-arch, who looked as uncomfortable as anybody else but did not shuffle. He stood still and straight while sweat ran down his face into the tight black neckband of an apprentice. Once he seemed to look at Snubnose and wink, or perhaps he was only winking the sweat away.

An elephant moved slowly down the Street of Ward and onto the Field of Proof. It was a ponderous metal ovoid bearing on its roof a velvet pavilion with the curtains drawn. The circle of scientists parted and opened, and the elephant, with much grinding, came to a stop a few feet from the group in the center of the Field.

The driver, an apprentice lawyer, climbed from his hole and parted the curtains of the pavilion. The High Arbiter looked out at the world with a sour expression. He did not descend.

"I will hear the holy one first," he said from his roost.

The godsman raised his hands to the sun, and spoke.

"Wise one! The Candidate and his master, abetted by the Grandmaster of the Guild of Scientists, are shamelessly defying the Principles. The Candidate is preparing to demonstrate the accelerated movement of matter into the future. That is a mystery of matter. Only the gods can know the path that things take from the dimming past to the dark future. Scientists must confine themselves to their arts and not try to steal the mysteries belonging to the gods.

"The gods grant knowledge of mysteries to godsmen who have humbly supplicated, not to thieves. Let the scientists work to improve the fire-wheels that spin through the night seeking out the encampments of the Bowmen. Let them mix better fertilizers to sell to the Lords of the West. Let them keep in repair the ancient elephants for the honor of our exalted citizens."

The High Arbiter looked slightly less sour, and he nodded shortly. "I will hear the Grandmaster of the Guild of Scientists," he said.

The Grandmaster lifted his head.

"Wise one!" he said. "The godsman jibes, and with some basis. Generation to generation, the fire-wheels spin more slowly and seek less surely. The fertilizers grow leaner. The ceremonial elephants are fewer and worse. Perhaps the godsmen are not supplicating hard enough for solutions to mysteries of matter—solutions which would enable the scientists to control matter. In the impious days before the Principles, matter served mystery and mystery served matter, and by some inexplicable mercy of the gods, things went very well."

Years of banality, years of caution, years of looking to his retirement offering had, for a little while, lost their hold on him.

Snubnose was silently raging. What a place, he thought, for the Grand-

master to burst out with that kind of thing. True, scientists sometimes talked that way in the Guild social rooms, especially after drinking illegal grain distillate, but here it could only hurt Bump-arch's cause.

Snubnose looked at his friend. Bump-arch was trying to suppress a jubilant smile. Surprised, Snubnose looked at his sister. She was jumping up and down with pleasure, as he hadn't seen her do for at least two years.

"Romantics," he said to himself.

The High Arbiter had a talent for looking displeased, and now he did not stint.

I note the Grandmaster's improper tone," he said stiffly "Furthermore, his remarks are irrelevant to the issue. The holy one says that the demonstration treats of a mystery of matter in violation of the Principles. In view of the Grandmaster's failure to refute that, it is highly probable. However, it will have to be established by authority and precedent—unless the demonstration involves an idea specifically forbidden, which would be conclusive. I will hear the holy one."

"There is indeed a forbidden idea. It is known from tradition and old texts that the mathematic of accelerated movement through time involves imaginary numbers. At the conference of 1480 DRC it was confirmed that imaginary numbers are a metaphysical concept forbidden to scientists."

"I will hear the Candidate's master."

A light cloud was filtering the sunlight, and the old man seemed cool and calm. He took a step to a little mound of good grass as if he were climbing to a rostrum.

"Wise one! Neither the holy one nor our own Grandmaster—both devoted patriots with their minds on the welfare of the City—thought to bring one very important fact to your attention. My apprentice's demonstration is not an original experiment; it is a reconstructed experiment. By Acknowledged Custom, reconstructed experiments are permitted regardless of mysteries and ideas so long as the experimenter does not comprehend any impious theory but merely follows the practical directions of old texts.

"I declare that my apprentice is ignorant of the theory of his demonstration—and who is in a better position to know than his master?"

Snubnose rejoiced. He was ready to forgive even the bread and water. In a few sentences Crookback had excused the Grandmaster's rashness, had made good the Grandmaster's oversight, and had set forth a strong case for Bump-arch.

"I will hear the holy one."

"Let him prove that!" the godsman shouted.

"I will hear the Candidate's master."

"I regret that I cannot prove it absolutely. Negatives are difficult of proof. I suggest that the Candidate swear to his ignorance by the God Mother-Father."

"You should know that apprentices

are not eligible to take oaths," the High Arbiter said impatiently, dropping the formal manner as if in a hurry to finish the proceedings—and finish Bump-arch.

Encouraged the godsman cried, "Let Crookback swear to it. He was willing to declare it."

"Will you?" the High Arbiter asked Crookback.

"Though I am sure of the truth, my reverence for the God Mother-Father is too great to permit me to swear to the contents of another's mind—"

"That, and not wanting to be tried for false swearing," Snubnose muttered. He admired his old master a lot less.

"—but I will swear by the God Mother-Father that I myself am ignorant of the theory."

"What good is that?" the godsman demanded.

Cleverly, the master stood in respectful silence. There was an awkward pause—awkward for the godsman and the High Arbiter—and then the High Arbiter collected himself and said, "The question may be answered. I will hear the Candidate's master."

"I am shocked and saddened," said Crookback, "that the holy one believes that apprentices, still wearing their neckbands, excel in wisdom the masters of the guilds."

The High Arbiter's driver, who had been squatting meekly by the elephant, suddenly let loose a screaming laugh, which he cut off just as suddenly with a scared catch of breath.

"I will hear the oath," the High Arbiter said.

Crookback swore by the God Mother-Father while the godsman glowered. The High Arbiter said, "The demonstration may proceed. My apprentices will present my bills tomorrow, including commutation of fees for twenty journeyman lawyers, since you did not place the issue in King's Courts."

Everybody winced, and the elephant rumbled away.

THE doors of the Ready Hall opened, and the whole body of apprentice scientists marched on the Field. They carried sections of steel sheet, lengths of magnesium tubing, and parts of machines unfamiliar to the guildfolk. Under Bump-arch's direction they began to assemble the equipment and to enclose it in a small building.

Bump-arch had planned well. They put the components together quickly, and marched from the Field. They had erected a cubical chamber of bright steel with an opening near the ground just big enough for a person —not too fat a person—to crawl through. Above the opening a closing panel was suspended in grooves.

The Grandmaster and the godsman and the kingsman inspected the setup with the peculiar ignorant attention of high officials. Each walked around the cube once and rapped it with his fingers here and there. Each solemnly stooped to the ground and put his head in the opening, although it was dark inside and nothing was visible.

The plump godsman made a move as if to crawl in, then backed away.

The kingsman brushed dust from his cloak, and the inspection seemed to be over. The three officials and Crookback withdrew to the circle of scientists and stood just within it, a little to the left of Snubnose.

Bump-arch took hold of the door panel, the only projection on the smoothness of the cube, and scrambled to the roof, where he could be seen by the whole circle.

Now Bump-arch was really enjoying himself, Snubnose thought. And Proudwalk was enjoying Bump-arch with her big eyes.

"Elder ones, whether my experiment succeeds or fails, the outcome will be self-evident. I make no qualifications and prepare no excuses. I will now go ahead with the demonstration."

Snubnose said to himself, "It's a better performance than the High Arbiter gave on his elephant." He would have liked to yell some words of encouragement.

"Before I start," Bump-arch added, "as required by the Laws of the Guild, I ask, are there any among you who wish to inspect my apparatus?"

It was no longer considered good manners to accept that invitation, but a journeyman physicist named Red-hair stepped forward. He walked very carefully, and Snubnose wondered how much grain distillate he had drunk that morning.

Before he reached the steel chamber, Red-hair yelled to the Candidate, "Tell me how to start it. I don't like our times anyway."

"It's not going very far," Bump-arch said easily.

"It's not going anywhere, boy," Red-hair roared. "Everybody knows that. I don't know why we've wasted so much time today."

"You'd better not move any dials! There are a couple of ten-day lamps inside, if you want to look around."

Red-hair crawled through the opening. Five minutes later he crawled out, his hair in his eyes. "I can't make anything of it," he said to everybody in general, and he resumed his place in the circle.

"Now, elder ones, does anyone else wish to inspect the apparatus?"

"I do!"

It was Proudwalk.

She walked on grass and over the patches of shifting dust; walked with the graceful, slightly affected manner that had given her the name. There was the pride in her walk, and there was sexuality.

Bump-arch leaped to the ground to meet her. He bowed as if they were at the King's Councillor's Ball and he were asking her for the dance. Proudwalk touched her palms together in the stylized gesture of acceptance. Immediately she slipped through the entrance. Bump-arch stooped, and quickly followed her. The door panel dropped down its grooves, sealing the chamber.

The scientists chattered; the godsman shouted.

The kingsman raised his voice. "What's going on, Grandmaster?"

"A reconstructed demonstration attempting the accelerated movement of matter through time to the relatively near future by an apprentice who, having completed the requisite service, has been admitted to candidature for the rank of journeyman physicist."

The Grandmaster took a breath.

"Ask the Candidate's master," the godsman said, with the calmness now of more intense anger. "You heard him trick the High Arbiter into ruling that a mystery of matter is not a mystery and a forbidden idea is not forbidden. Maybe he can convince you that a desire of matter is not a desire of matter."

Crookback spoke up at once. "It would seem an unlikely place to give way to desire, but I am an old bachelor, as ignorant of the desires of matter as of its mysteries. However, young men and women frequently work together on scientific experiments."

"Not in windowless boxes," said the kingsman. "And who gave her leave to help the Candidate? There is something odd about this whole demonstration, and I'm going to find out what it is."

The kingsman strode to the little building. The sun had returned in full brightness, and the alloyed-steel walls were glistening. The kingsman glistened too: the smooth fabric of his cloak—his silver ornaments—his mace of massy silver

Sharply he rapped with his mace on the closed door. There was afterwards silence. He rapped again. There was again silence.

The kingsman lost his temper. He brought back his mace and swung it fiercely toward the wall of the chamber.

The blow of massy silver against steel did not come. The wildly swinging arm and mace whirled through the air. The kingsman fell forward.

He sprawled, splendid and ridiculous: defeated by air.

There was no cubical building. The guildfolk faced each other across the Field. Where the steel cube had stood, the kingsman was getting to his knees.

Floating gently through the air, separating and drifting down, were many sheets of paper.

Snubnose picked up one of the papers as it fell. It was headed "COPY OF CONTRACT" and dated that Day of the Candidate, 155th-1712 DRC. It said: "Hereby do Bump-arch, apprentice physicist, and Proudwalk, journeywoman biologist, contract under Private Law a marriage between them and do undertake to dwell as husband and wife under the same roof for a period of five years in validation of this marriage: such period to terminate for purposes of the Private Law upon 155th-1717 DRC, but to continue under other roofs for the duration of their lives."

"Time," said the Grandmaster.

Walking slowly home to face his mother, Snubnose said to himself, "This one will keep the Guild of Lawyers busy for the duration of all our lives."

Lost Continents

By L. Sprague de Camp

No. 6

WELSH and OTHER INDIANS*

Across the seas of Wonderland to Mogadore we plodded,
Forty singing seamen in an old black barque,
And we landed in the twilight where a Polyphemus nodded
With his battered moon-eye winking red and yellow
*through the dark!***

Noyes

MANY and strange have been the theories advanced to account for the origin and cultures of the American Indians. These theories involve not only sunken continents but also extraordinary voyages, astounding trading-enterprises, and amazing feats of converting primitives to a civilized way of life. The Jewish-Indian theory, already mentioned, was not the only one. Joseph Smith, the founder of Mormonism, set forth a variant of this in his *Book of Mormon*, a tedious and puerile pseudo-Biblical fabrication which he claimed to have copied from golden plates lent him by the angel Moroni. The angel thoughtfully also provided a pair of magical spectacles, the Urim and Thummim, which translated the inscriptions on the plates into English.

According to Smith, one Jared and his brother sailed to America from the Old World at the time of the Confusion of Tongues, God having kindly provided their ships with artificial light. Their American descendants increased to several millions, but were completely destroyed, save for one lone survivor, in a war that ended with a great battle on the hill Cumorah in New York State.

Later a certain Lehi, on God's orders, emigrated from Jerusalem with his family to America in the reign of Zedekiah. Although they met the last Jaredite, they failed to profit

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*Slightly condensed from *Lost Continents: The Atlantis Theme in History, Science, & Literature*, by L. Sprague de Camp; Phila: Prime Press, 1952; copr. 1952 by L. Sprague de Camp.

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from his experience, for they too fell into civil war, and in a last battle on Cumorah all the better element were killed off. The descendants of the survivors became the American Indians. Previously Christ has visited the Nephites, one of the rival clans, to convert them, and had explained that he was on his way to preach to the Lost Ten Tribes somewhere else.

The Welsh-Indian theory appeared in 1583 in a propaganda pamphlet by Sir George Peckham, and again in 1584 in Humphrey Lhoyd's *Historie of Cambria, now called Wales,* and was soon repeated by other authors like Hakluyt, Purchas, and Raleigh. The English were just beginning to get imperialistic ideas about the Americas, so that any story indicating early British discovery of these continents had a strong appeal to them.

The hero of the Welsh-Indian stories, Prince Madoc ab Owen Gwynnedd, seems to have been a real twelfth-century Welshman, an expert sailor and fisherman according to the brief allusions to him in bardic and monkish literature. According to Lhoyd, Madoc, distressed by a war between his father and his brothers, sailed away into the Atlantic with several hundred followers. Later he came back, said he had found a fruitful land to the west where he had left some of his people, collected ten more shiploads of colonists, and went away for good. Subsequent versions of the legend had Madoc landing in Florida, Mexico, Yucatán, and even the west coast of South America. The number of his ships was blown up to eighteen and the number of colonists to 3000.

A travel tale first published in 1704 under the name of "Morgan Jones" further exploited the Welsh Indians. Jones claimed to be a Welsh preacher who had been caught by the Tuscaroras in 1660 while going with the Port Royal expedition into the wilds of North America. The Tuscaroras would have killed him but for the intercession of an Indian of the Welsh-speaking Doeg tribe, otherwise unknown. It was later reported that another Welshman named Griffith was taken in 1764 by the Shawnees to visit a Welsh-speaking tribe. The Welsh Indians, you see, withdrew westward as the continent became better known, like the Great Salt Mountain staying just out of easy reach. Every time the fable started to die down somebody would stir it up again; in the 1790's patriotic Welshmen sent John Evans to search North America for the Welsh Indians to reconvert them to Christianity, and Southey wrote a poem, *Madoc,* on the theme.

For a time the Mandans, a farming and bison-hunting tribe on the upper Missouri River, were identified with the Welsh Indians. Evans thought they were, and so did the artist George Catlin, who in the early nineteenth century published a big book, *American Indians,* calling attention to the Mandans' coracle like boats and other culture-traits. The Mandans were a natural choice, being a friendly people with a slightly higher

culture than their neighbors and slightly lighter skins. However, nobody knows whether the latter were due to a natural variation in pigmentation (Some Amerind tribes being naturally darker than others) or to their having been in contact with Whites for a century during which their women tendered the ultimate in hospitality. Holand, the Kensington Rune Stone man, thinks they got both their culture and their coloring from the survivors of a party of fourteenth-century Scandinavians who wandered inland to the Great Lakes and, unable to go back, went native.

Be that as it may, the poor Mandans were nearly wiped out by the great smallpox epidemic in 1837 and those left alive scattered to other tribes. Thereafter the search for the Welsh Indians resumed; Brigham Young was still looking for them in the western deserts in 1854. The usual announcement of their discovery says that a particular tribe—Caribs, Mandans, Flatheads, or whatnot—uses Welsh words, such as that for "cow" (*buwch*, pronounced "*beeookh*") though it is hard to see how any Amerinds could have had a word for "cow" in pre-Columbian times when there were no cows in the Americas. At last accounts Robert Pritchard of Invermere, B. C., had identified the Kutenais of British Columbia with the Welsh Indians, as usual announcing that they use the Welsh word for "cow." The Welsh Indians seem to have been chased as far as they can go, unless they mush north to Alaska.

As if the Jewish Indians, the Mormon Indians, the Welsh Indians and the Norse Indians weren't enough, the Polynesian Indians have also played a part, in theory, in the populating of the New World. In the early nineteenth century Ellis asserted that the Polynesian islands had been settled by people from Peru, and in 1830 Dr. John D. Lang of Sidney, Australia, denied this on the ground that the ancient Peruvians were not a sea-going people; therefore the Americas must have been peopled across the Pacific by the Polynesians.

One comes across arguments of this kind all the time in Atlantism and the search for the Amerinds' family tree. The so-and-so's are not known to be navigators, therefore they couldn't have reached a place by water; or they could not have built such-and-such a structure because they are too primitive, and so on. Spence, for instance, trying to establish a lost continent in the Pacific, argues that the Melanesians must have reached their islands afoot because they are not seagoing. In the first place the writer often has his facts wrong (some Melanesian tribes are almost as mighty sailors as the Polynesians) and in the second, people sometimes change their way of life. Thus the Easter Islanders, originally seamen like other Polynesians, settled on a treeless island with no material for shipbuilding, with the result that when their old boats wore out they were stuck.

The Polynesian-Indian idea, which

became popular among French anthropologists, is not so silly as some proposed derivations for the Amerinds. The Polynesians, a racially anomalous people, seem to be partly or largely Mongoloid (with some Melanesian or Oceanic Negro admixture) and are therefore physically rather like the Amerinds. The argument has raged for over a century between those who thought the Polynesians influenced the Andeans, those who believed the Andeans influenced the Polynesians, and those who denied any contact between them. Recently a sextet of stalwart young Scandinavians under Thor Heyderdahl sailed a balsa craft from Callao, Peru, 4300 miles to the Tuamotu Archipelago to "prove" that noble Nordics from Peru settled Polynesia about 500 A.D. Heyderdahl did not explain how their rafts returned to Peru against wind and current—and anyway to show a thing can be done is not the same as proving that it was done.

Now, it does not seem reasonable, in view of differences of race and language, to assert that Polynesians *are* Andeans or *vice versa*. The Polynesians' own traditions, corroborated to some extent by archeology, say that they moved into Polynesia from Indonesia (they particularly mention Java) within the last thousand years, reaching Easter Island about 1300 A.D. Therefore they could hardly have founded the Andean civilization, which started some centuries earlier.

There is still room for argument, all the same, over the question of an occasional contact between the two peoples, whether this took the form of Polynesian canoe-galleys' paddling to Peru or Andean balsa rafts' wafting to the islands or both. Even some conservative archaeologists seem to be coming around to the belief that there may have been some connection, since the Amerinds' own traditions tell of such visitors from the Western Ocean.

But it does not follow that Polynesian influence started the Andean civilization, or even that it had any profound effect upon it, or that it influenced the Mayas at all, since the Mayas and Andeans were unknown to each other. Their only contact was slow cultural seepage via the almost impassible jungles and inhospitable coasts of Panama and Columbia, and while some objects were carried from one continent to the other by traders, and some techniques slowly diffused across, more complicated culture traits like the Mayan calendar failed to make the passage.

Further, the vast distance from South America to the nearest Polynesian archipelago, the Tuamotus, would have made the voyage desperately risky for even such accomplished sailors as the Polynesians. And besides, useful Polynesian traits that one would have expected to diffuse to the New World as a result of these contacts, such as the double canoe and the raising of chickens, pigs, bananas, and sugarcane, failed to do so.

MEANWHILE those who, like Spence and Churchward, believe in sunken Pacific continents, have been putting the Polynesians to their own peculiar uses.

Like Jacolliot they argue that the Polynesians are the remnants of the people of a former Polynesian continent, a Pacific Lemuria. They cite the Statues of Easter Island, a lonesome and infertile speck of land in the Southeast Pacific, midway between the Tuamotus and the Chilean coast, as examples of Lemurian artwork.

Now, almost as much pseudo-scientific pother has been made over Easter Island (or Rapanui as the natives call it) as over the Mayas. As with the Mayas, there is much that we do not know about the Easter Islanders. Again, the reason is not that these people are inherently mysterious, but that the evidence about them has been allowed to perish unrecorded.

The Rapanuians actually comprise about 450 brownskinned fishermen of mixed Polynesian-Melanesian type, notorious as among the world's most accomplished thieves. Their traditions tell of their arrival in two canoes from the west under a chief named Hotu Matua about 700 years ago. They once had a higher culture than they do now, with a system of picture-writing on boards, and a religion in whose observance they made the strange statues that are their best-known culture-trait.

These statues are busts from three to 36 feet high, carved with stone tools out of soft volcanic rock. The people dragged these objects into position with grass ropes, set them up in rows around the island, and provided them with stone hats. Being topheavy the statues have now nearly all fallen down. The Rapanuians had mounted about a hundred of these busts when they abandoned the custom, leaving a lot of half-done statues and stone chisels in the quarry where all these sculptures were made. These stern, highly stylized images remind the beholder of Shelley's lines about the ruined statue of Ozymandias:

> . . . Half sunk, a shattered visage lies, whose frown,
> And wrinkled lip, and sneer of cold command,
> Tell that its sculptor well those passions read
> Which yet survive, stamped in these lifeless things . . .

Between the lack of resources on the island, the raids of South American slavers, and the cultural depredations of missionaries (who burned most of the boards with the picture-writing) the native culture collapsed before it had been properly studied. Hence the exact meanings of the writing and of the statues have been lost. However, the many Atlantist statements that the statues could not have been executed by the simple Rapanuians, but must have been produced by an advanced civilization, are simply untrue.

Some Lemurists even take seriously the claim of Juan Fernandez to

have sighted a continent in that area in 1576, maintaining that at that time Lemuria had not wholly vanished, but was still represented by a large archipelago in the Rapanui region!

THE story of the Polynesian Indians brings us to the diffusionist controversy, which has an important bearing upon Atlantis because nearly all Atlantists use diffusionist methods in their reasoning. The fact that the Atlantists and the diffusionists start with the same facts, using the same logic, and come out with entirely different conclusions, indicates that something is wrong with these methods.

About a century ago, Adolf Bastian, a pioneer German anthropologist, set forth the idea that the human race possessed a "psychic unity," which gave it a tendency always to come up with the same answers to the same problems. Then when the idea of evolution became common, many anthropologists inferred that all human societies evolved along the same lines in accordance with "psychic unity," and that the observed differences among them were due to the fact that some had merely evolved faster than others. If we only let the present-day primitives alone long enough they would inevitably develop derby hats and cuckoo-clocks like the civilized peoples.

All that seems pretty naïve now; while these ideas are not altogether wrong, the situation is much more complicated than that. In any case a number of anthropologists, around the turn of the century, reacted violently against "psychic unity" to the point of asserting that different societies *never* happened upon the same answers to the same problems—a solution just as extreme and a good deal sillier. The leaders of this anti-Bastian school, the diffusionists or dispersionists, were William H. R. Rivers, Sir Grafton Elliott Smith, and W. J. Perry. They traced all civilization back to a single source, namely Egypt, and thought that the early Egyptians of the "Heliolithic" culture had wandered all over the world looking for gold and pearls and had so sown the seeds of civilization everywhere from Crete to Chile.

Their enthusiasm was not dimmed by the fact that their arguments were full of yawning holes. Thus Smith thought that the wave of cultural diffusion had started out from Egypt after 1000 B.C., but had arrived in India in pre-Aryan times—that is, *before* 1000 B.C. And Perry, trying to prove that all North American cultures were degenerate copies of that of the Mayas (which in turn was of course a degraded Egyptian) asserted that while other North American Indians did not have irrigation, the Mayas did, when the facts are just the reverse. Moreover heretical schools have arisen to argue just as convincingly for India, Ohio, or Brazil as the source of all culture.

Actually there is plenty of good sound evidence to the effect that, while there has been a lot of cultural diffusion from one part of the world

to another, there has also been a lot of independent invention by primitives who often hit upon the same answer to the same problem though on opposite sides of the earth. For examples, the blow-gun was invented independently (we can be reasonably sure) in Indonesia and in tropical South America, and the fire-piston for starting fire in southeast Asia and in France.

The true reason that primitives don't progress faster than they do seems to be not inherent stupidity as the diffusionists preached, but the static and conservative nature of primitive society, in which an inventor was liable, if he did not watch his step, to be liquidated as a dangerous innovator. During the comparatively short time that primitives have been under observation by competent scientists, they have invented a number of things, such as the detachable canoe-outrigger invented by a Gilbert Islander living in the Marquesas to keep people from stealing his canoe.

THE diffusionists have made strenuous efforts to prove that the civilized societies of the New World are derived from those of the Old, on the grounds that as they built pyramids and mummified their dead like the Egyptians, sculped elephants upon their monuments like the East Indians, and used jade like the Chinese, they must have come from Egypt via India and China.

But when we examine these arguments they evaporate like the snows of yesteryear. The Peruvian "mummies" are merely dried-up stiffs, preserved by the aridity of the Peruvian climate and not by Egyptian embalming technique. The Aztec pyramids evolved from temple platforms instead of from tombs like those of Egypt, and moreover began their evolution thousands of years after the pyramids of Egypt were built. Mayan jade is from a New-World source.

And the famous Mayan elephants are based upon several misunderstandings, wrong interpretations, and outright fakery. The myth got started from reports of the bones of mammoths and mastodons found in the Americas—relatives of the elephant which, however, became extinct long before the rise of Mayan culture, albiet the Mayas' remote ancestors might conceivably have helped in this extinction by eating the last survivors.

Then Count Waldeck, in a spasm of imagination, drew pictures of some Mayan glyphs into which he put wholly non-existent elephant heads. When Elliott Smith learned of Waldeck's elephant drawings almost a century later, he insisted upon taking them seriously, though more accurate reproductions of the glyphs, such as the drawings by Frederick Catherwood, had long been available. The question as to who was the more correct has of course long since been settled by photographs of those identical carvings.

Finally the diffusionists cited as elephants a couple of ambiguous-looking creatures carved on the top of

the monument called Stela B at Copán. Alas, to judge from the position of the creatures' nostrils and the feathers around their large round eyes, they are almost certainly conventionalized macaws.

As far as we can tell from the evidence, then, the Amerinds were neither supermen who invented everything they had themselves, nor mere "putterers" (as Gladwin calls them) who got all their culture from assorted Old-World immigrants and wanderers, but ordinary human beings who did pretty well at invention considering what they had to work with, but who also probably did get some of their culture-traits such as the bow by diffusion from the Old World. Which of course doesn't make them Egyptians by adoption—or Atlanteans either.

NEXT MONTH—AT LONG LAST

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The orders were to build up Venus, make it sound like the gateway to Paradise for the average Earthman — fog-fies, flying snakes and "tame" Venusians included.

PUBLICITY STUNT

By Robert Moore Williams

"JUST go right ahead and start chewing on me!" Molock briskly invited the Venusian, Shad Brisbee. "When you get a square meal, I'll get a lunch!"

Rita Morgan didn't turn a hair at the challenge but I thought Captain Wilkerson, who was officially in charge of us, was going to faint. "No, no, NO!" Wilkerson screamed. "Molock, you're getting us all into trouble. You're —"

"Sheddap!" Molock said to Wilkerson. He turned again to the Venusian, Shad Brisbee. "You heard what I said. If you want to try to start carving on me with one of those frog stickers you've got stuck in your belt, hop right to it. But remember, by Harry, while you're doing your carving, I'm going to be doing a little light whittling myself."

Except for the needle pistol in his pocket, Molock was unarmed. Lifting hands as big as hams, he looked Shad Brisbee square in all of the Venusian's eyes that happened to be turned toward him at the moment. Molock had the full attention of all six of those eyes. The expression on Shad Brisbee's face indicated that if he had had six more eyes, he would have been concentrating all of them on the antics of this mad human.

Shad Brisbee was seven feet tall, he must have weighed close to 300 pounds. Molock's six feet, 185 pound frame was a pygmy beside the Venusian. Shad Brisbee fingered the knives in his belt as if he was considering accepting Molock's invitation, then suddenly spread his hands. Protesting sound bellowed out of him.

"But you 'ave landed right in the middle of our dancing ground!"

"Then by Harry! dance somewhere else!" Molock shouted.

I thought at first that Shad Brisbee was going to explode. He puffed himself up until he looked to be eight

Illustrated by Joe W. Tollerton

feet tall. Indignation turned him green. Each of his six eyes turned yellow and he glared at Molock out of all of them.

"Molock, his dancing ground is sacred!" Wilkerson croaked.

"And to me, staying alive is sacred." Molock answered. "Which is the sacredest, my staying alive or his dancing ground?"

"But the way you're acting now, you're going to get us all killed!" Wilkerson screamed.

"Am I?" Molock answered. "Watch this!" He turned again to Shad Brisbee. "Listen, you six-eyed baboon. We landed in the middle of your dancing ground by accident but we're going to stay right where we are as long as we damn well please. Get it? *We're going to stay here as long as we damn well please.* And neither you nor any other of your six-eyed tribe is going to do anything about it."

I was holding my breath. Wilkerson looked as if he was about to faint. Only Rita seemed to be enjoying this scene. Perhaps she had illusions that two brawny giants were battling for her, which was a big mistake on her part. Shad Brisbee wouldn't have had her, or any other human woman, in his harem as a gift. If she was inspiring Molock to put on his act, then maybe he was battling for her sake. I had the impression that if Wilkerson had thought that she was inspiring Molock to this act, the captain would have drowned her in the nearest mudhole, publicity department or no publicity department. And I would have helped him.

Shad Brisbee puffed himself up until he looked as if he weighed 400 pounds. He fingered his knives in his belt, shifted his weight on his bare splayed feet. He extended two of his eyes and looked backward at the jungle behind him as if he was desperately hoping that some of his tribe would turn up to help him dispose of this brash human. The other four eyes continued to glare at Molock.

"There's none of your tribe around to help you," Molock stated, waving his fists. "It's just you and me."

Shad Brisbee shifted uncomfortably. He didn't know quite what to make of us. We were humans. Since he was a "tame" Venusian, he knew quite a lot about humans. We had landed right in the middle of the huge cleared space that his tribe used as a dancing ground. This in itself was sufficient reason for him to destroy us utterly. Each of his six eyes revealed quite clearly that he longed to destroy us and that only Molock was keeping him from doing it.

"Well?" Molock said, waving his fists. "If you're ready to start getting that square meal, I'm ready to start eating my lunch."

Shad Brisbee took a deep breath. Somewhere inside of him he made up his mind.

"It is all right for you to land on our dancing ground," he said. The way he spoke, the words hurt him.

Wilkerson, Rita, Molock, and I all beamed.

"But you must be gone in one zonar!" Shad Brisbee snarled. "Or I will tear you all to pieces with my

own bare hands." Saying these words didn't hurt him. He enjoyed every one of them. Judging from the way his hands worked as he spoke, he would enjoy even more translating his words into action. "Be gone in one zonar—or else!" Turning, he stalked into the jungle.

I quit breathing again. The smile went from Wilkerson's face. Rita looked a little perturbed. Only Molock was unconcerned even though he knew that a zonar was less than an hour and he wouldn't be gone from this place in two weeks, and then only if we were lucky.

"Did you see me out-bluff him?" Molock said, grinning. "Did you see me run a sandy on that six-eyed idiot?"

"You were marvelous, simply marvelous," Rita murmured.

"Oh, hell!" Wilkerson shouted. If there had been a stone wall handy for him to butt his head against, I'm sure he would have felt much better. "Yaas, you bluffed him. You bluffed him so goddamned good that we'll all be dead before we get out of this place. Remember, this is his country, this is his tribal dancing ground—"

"Captain, I'm sure you are taking much too negative a view," Rita interrupted.

Since she was a woman, Wilkerson couldn't slug her. But woman or not, he looked as if he was about to do it.

"I'm not taking nearly as negative a view as Shad Brisbee will take when he comes back and wants his dancing ground," Wilkerson said, bitterly.

For a moment, Molock looked worried.

"You were yelling for a light lunch," Wilkerson said. "You may find you have bitten off more than you can chew. Now I'm going into that ship and get headquarters on the radio and see if I can get some help out here in time to save our necks. In the meantime, by thunder, you get ready to take care of Shad Brisbee."

Turning, Wilkerson stalked toward the ship. Indignation bristled in every step he took. We followed him with reluctance.

Beneath my breath I cursed Trans-Space, Inc., its publicity department, and George Cooper. Cooper was head of the publicity department. It was his brilliant idea that had landed us here in the middle of Venus, where Shad Brisbee was giving us one zonar to get off of his dancing ground—or else.

Of course, you know that Trans-Space, Inc., has a monopoly on carrying passengers and freight to and from Venus, but what you probably don't know is that from the financial end, things have been a little tough for the company. Now don't go getting your sympathy aroused about this poor suffering corporation being down to its last billion credits. Let Trans-Spact sympathize with itself, it's quite capable of doing the job very competently. It is also capable of hiring boys like George Cooper to help it sympathize with itself. Cooper had dreamed up the idea that the way to help the financial situation was to encourage human colonizing on Venus. If they could get several thriving

human colonies settled on the Veiled Planet, the line would not only pick up revenue from transporting the colonists to Venus but it would also pick up some profitable freight business. In the long run, they foresaw a very happy increase in traffic.

One joker they ran into right from the start was that nobody but a damned fool wanted to go to Venus and argue with six-eyed apes like Shad Brisbee over the rights to their dancing grounds. Also, nobody wanted to put up with the fog flies and the flying snakes and the what-nots.

Cooper knew how to change all that. "We'll make films, write books, publish pamphlets—all of them emphasizing the good points of Venus. We'll make this planet look and sound like a seed catalogue. We'll soon have thousands, maybe millions of people, coming here. Build Venus up. Make people see Venus maybe not quite as good as heaven but at least as wonderful as Eden!"

This was where Wilkerson and Molock and Rita Morgan and yours truly, Sam Crane got into the act. Rita, who was the apple of Cooper's eye, got the assignment of taking the three dimensional movies in full color and full sound that would make Venus attractive. Of course, on the sound side we had Cooper's permission to dub out the screams of any Venusian getting swallowed by a forty-foot boa constrictor. Wilkerson, Molock, and I were included to fly the ship and help Rita.

In other words, it was our job to dig up the raw material that the publicity department could use to sell a bill of goods to suckers back on Earth who could be flim-flammed into making the big hop to Venus.

In getting these pictures of Eden in the Sky, we had hunted up the tamest of all tame Venusians, Shad Brisbee. We knew him, he knew us. To my mind, the fact that he knew us was not to our advantage. In some ways, I would have preferred taking our pictures among some of the wilder tribes, who didn't know us. But Know-All George Cooper had decided that the tame Shad Brisbee was just the lad for us. He had loaded the ship with trade goods and had told us where to go. All of this might have worked out fine, if we had not damaged the drive and had to make a forced landing right in the middle of Shad Brisbee's tribal dancing ground.

You may not know it, but these Venusians are funny about dancing. They don't go in for cultural amusements, there isn't a ball park or a library on the planet, a pin ball machine, a golf course, or anything else that might make life more cultivated. But every Venusian has his private dancing ground and every tribe has a big one. For amusement, the Venusians dance. They dance in the morning and in the afternoon. They dance to celebrate the beginning of a spell of wet weather and the end of it. The male Venusians dance as their squaws go out in the morning to gather fruits and vegetables, they dance in the afternoon when the squaws come home. At night, the squaws join in and everybody, big

and little, old and young, dances.

They hold elaborate contests to determine who is the best tribal dancer. He's the chief, the big shot, the boss. They hold contests between tribes, everybody gets drunk, everybody dances. Personally, I'll say one thing for the Venusians, it always seemed to me that dancing contests were a better way to settle personal and tribal problems than war, but the Venusians are just benighted, ignorant natives with no knowledge of the finer things of life. This doesn't mean they can't and won't fight—they fight alligators and flying snakes and blue tigers—but they just don't fight each other. Any personal or private quarrels they settle by dancing it out.

I've heard learned professors from Earth lecture on the vast satisfaction to be derived from expressing the kinesthetic sense, the rapture that goes with movements of the body, the sweet pure flame of mood expressed by body movement and gesture. All of this may mean something, to the professors. So far as I'm concerned the Venusians just like to dance.

If you want to start a ruckus—and but good—just suggest to one of the males that things would be a lot better around the home place if he spent more of his time working and less dancing. If you want to start a real fracas, just come between a Venusian and his dancing. Hell hath no fury—

I know, this is not the way it is written up in the books. The authors usually speak of the "quaint" Venusian dancing customs, but this is the way it is.

Shad Brisbee might be a tame Venusian to the publicity department, but when we landed right in the middle of his tribe's dancing ground, you could guarantee he would revert to the wild state.

With Wilkerson stamping the ground ahead of us, we moved toward the ship.

Whuuuuuup!

An arrow eight feet long came out of the jungle behind us, passed between us, whammed into the open lock of the ship ahead of us.

It beat us to our destination, but it didn't beat us much. I don't know who led the way but it was my opinion that Wilkerson damned near beat that arrow into the ship. Jumping into the ship, we slammed the lock.

"Whew!" Wilkerson said, mopping sweat from his face.

"Just an arrow," Molock said. "Heck, they're nothing. Shad Brisbee and his boys will never get anywhere with arrows. And they haven't got any weapons except spears, clubs, knives." He sounded very comfortable about the situation.

"But we haven't even got a gun, except for your spring pistol!" Wilkerson said. For several minutes, he spoke freely and movingly about George Cooper. It had been Cooper's idea that we go unarmed. "Treat these natives with friendliness and they'll treat you with friendliness. No guns!" Cooper had decreed.

"Wait until I get that damned Cooper on the radio!" Wilkerson said, stalking into the control cabin.

"There won't be anything to this," Molock said. "Cooper will send out a couple of ships and blow these idiots to hell and gone. Or scare 'em to death. Let's go into the galley and have a beer."

WE WERE starting on our second can of beer when Wilkerson stumbled into the galley. He had a glazed look in his eyes and he was waving his hands and sort of frothing at the mouth. Snatching up the can of beer Molock had just opened, he drained it.

"When will the ships be here?" Molock asked.

Wilkerson blew foam from his lips. "They won't!" he said.

"What?" Molock gasped. "Do you mean those dirty dogs are going to leave us here to be murdered by a bunch of six-eyed apes?"

"Cooper was mad as hell because we had crash landed. He wanted to know what the hell I meant by damaging company property. From the way he sounded, the cost of the repairs was coming out of his lunch money."

"I'll kill that Cooper!" Molock screamed. "Doesn't he know our lives are in danger?"

"He seemed to think that maintaining peaceful relations with the Venusians was more important than our necks," Wilkerson explained. "He said that if Shad Brisbee wanted to knife us for landing on his dancing ground, it was all right with Trans-Space and with him."

"But Rita is here!" Molock raged. "Doesn't he see he's risking the life of a woman?"

"He said that Trans-Space doesn't discriminate between its employees because of sex," Wilkerson answered. "Open me another can of beer, somebody. I feel faint."

"Let me at that radio!" Molock screamed. "I want to talk to that Cooper."

He slammed out of the galley. While he was gone we drank beer vigorously. When he returned his face was ash-colored. "What did Cooper say?" Wilkerson asked.

"He said that good publicity was more important than our necks, that if we are going to bring colonists here, we have to be able to prove to them how peaceful Venus is."

"Um," Wilkerson said. "What else did the good man say?"

"He fired me!" Molock sounded as if he was strangling. "He told me to come in and get my pay. When I asked him how I was to get there, he said I was to walk."

"Um," Wilkerson said. "Well, go right ahead and start walking. You bluffed Shad Brisbee once. You can do it again."

"You're as bad as Cooper!" Molock screamed. "Shad Brisbee would murder me if he caught me outside this ship. I'm not a damned Venusian, I'm fair game to him."

"Nah, he wouldn't hurt you," Wilkerson said, "Hell, he's just an ignorant native. All he's got are knives and clubs and spears and bows and arrows—just a native. He's easy to bluff. Hell, you're a human being. He

probably looks on you as a sort of a god. At least some of the literature I saw one of the trained seals pounding out in the publicity department said the natives regarded humans as minor gods who can do no wrong."

Whaaam! An arrow smashed against the plastite hull window bounced off. One point was definitely to our advantage. No weapon possessed by the Venusians could get through the steel hull or the plastite view ports of the ship. We were as safe as sardines in a can—unless the Venusians found a can opener.

We sat in the galley and morosely drank beer and considered how best to draw our wills.

"Hey, look!" Molock gasped, pointing toward the plastite window.

At first glance it seemed to me that the whole Venusian race had put in its appearance. There were hundreds of Venusians, thousands of them, coming from all directions. Shad Brisbee had called in his pals from miles around and they were all heading our way.

Wilkerson's face went white. "This looks like the end, boys," he said.

"Nah!" Molock answered. "They'll never get through the hull. I'll figure out something."

"You had better get your slide rule into action. Uh! What was that?"

That was the ship lurching as if it was about to turn over. From the ports, we could see what was happening. Venusians were on both sides of the ship. Those on one side were pushing while those on the other side were pulling. When the ship settled back, the ones on the second side pushed like hell, setting up a rhythmic rocking motion that was rapidly threatening to turn the ship over.

"You could turn over a mountain like this!" Wilkerson whispered, as the ship lurched. "My God! They're going to try to roll the whole damned ship into the swamp."

On one side of Shad Brisbee's dancing ground was jungle. On the other side was a deep pool of muddy water. Staring at it, Wilkerson seemed to talk out of a trance. "Drowned, like rats in a trap, in my own ship!" He took a deep breath, turned to Molock. "Go out and bluff Shad Brisbee now!"

Molock also took a deep breath and rose to his feet. "I'll just go do that," he said, moving toward the lock.

All of us were too stunned to try to stop him.

When he opened the outer door of the lock, the noise that came in was like the howling of a forest full of baboons. But the rocking of the ship stopped as soon as he appeared. I don't know why the Venusians didn't kill him before he had a chance to open his mouth, but probably they were too surprised at his appearance to take immediate action.

"I want to talk to Shad Brisbee!" he yelled at the top of his voice.

Shad appeared in the throng. He looked more than seven feet tall and I would have sworn he had more than six eyes. The throng grew so quiet you could hear these tame Venusians slobbering as they thirsted for human blood.

"I'll dance you . . . for the right . . . to keep our ship . . . on your dancing ground . . . until it is repaired . . ." Molock said.

"The hopeless fool!" Wilkerson gasped. "The utter idiot . . ."

"You will dance *me?*" You could have heard Shad Brisbee scream for miles around. The idea appalled him, because it was a direct challenge, and it also appealed to him because he was absolutely certain that he, or any other Venusian could out-dance any human who had ever put foot on the Veiled Planet. "I'll do it!" Shad Brisbee roared. "Make room for the dancers!" His voice was a howl that shook wondering echoes out of the jungle.

Molock came back into the galley. "You can't do it," Wilkerson gasped. "These dances are endurance contests. That big baboon has done nothing but dance all his life. He can dance straight into next week . . ."

"I'm stalling for time," Molock said. "I want you to get on that radio again and convince that damned Cooper he's got to get here and help us. All he has to do is swoop low in a ship over this place and these baboons will take to the jungle or the swamp to dodge the rocket blast. Tell him."

"I'll tell him," Wilkerson said grimly. "The question is—will he act on what I tell him."

Molock's eyes went to Rita. "Honey, I want you to get those cameras going and keep them going. I want this recorded for posterity, if for nobody else."

Rita was shaken and scared. But there was good stuff down inside that girl. "Will do," she whispered. She got to her feet and headed for the observation dome in the top of the ship where the cameras were located.

Molock turned to me. "I've got a little job for you, Sam." Out of his pocket, he slipped the little needle gun. "I'm going to have to dance against that six-eyed baboon. When he gets to dancing real good and everybody is all excited, I want you to shoot him in the butt with one of these needles."

"But—" I whispered.

"Exactly," Molock said. "It won't kill him, but a couple of these needles will slow him down considerably."

I regarded the weapon with horror. "But that means I'll have to go out there where all those Venusians are!" Maybe this wasn't a heroic thing to say but the thought just popped out of my mind. Anyhow, I wasn't feeling very heroic.

"Yah!" Molock said.

"But—"

"I'll be out there," Molock said. "I'll be out there dancing. All you've got to do is squat on the ground."

"Okay," I said. The word cost me a desperate effort but I said it.

We went out together . . .

The Venusians had already cleared a circle fifty yards in diameter. They clustered around this circle like hungry dogs waiting for the kill. Shad Brisbee, stark naked, grinning out of all of his six eyes,

looking nine feet tall and fit to dance all month, grinned as he waited. In Shad Brisbee's mind, here was a lamb being led to the slaughter.

Shad Brisbee and I had one thing in common—we both agreed on this lamb led to the slaughter idea.

I squatted on the ground at the edge of the circle and tried to lose myself between the legs of the Venusians towering over me.

Have you ever seen a Venusian dance? If you haven't, you have missed one of the weirdest sights in the solar system. They do everything in the books on ballets, ball room dancing, tap dancing, they also turn flip-flops and walk on their hands. They do things that no human being will ever believe until he sees it.

As big and as ponderous as he was, Shad Brisbee went into his act by turning three quick back flips.

I'll give Molock credit, he could do tricks I had never guessed he could do. He kept even with Shad. But within thirty minutes he was beginning to pant. Going round the circle, dancing every step of the way, he found wind to yell at Wilkerson, who was peering from the lock.

"Any news . . . from that damned Cooper?"

"Operations contacted him . . . in a bar!" Wilkerson yelled. "Cooper said you could dance your own way out of this . . ."

"The dirty dog!" Molock screamed.

The next time he came around the circle, waving his hands and bending double as he imitated one of Shad Brisbee's more intricate steps, he whispered to me. "Bunt him . . ."

Keeping the little spring gun out of sight in my hand, I waited until the Venusian's back was turned to me, and pressed the trigger. The spring clicked softly. I caught a glint of the needle as it went home in Shad's backside.

He went right on dancing as if nothing had happened.

The next time he came around the circle, Molock whispered, "Let him have another one . . ."

As I started to pull the trigger, the sky seemed to fall down on top of me. A ham-sized Venusian hand smashed me downward.

"No tricks!" a Venusian voice snarled into my ear.

The gun was jerked away from me. About twenty-four eyes in my vicinity were concentrated on me, each one glaring in its own individual way. I was given to understand that if I attempted to take any further part in the proceedings, I would be fed to the nearest alligator.

"What happened?" Molock yelled, as he danced by again.

"They caught me. You'll have to out-dance him honestly."

"But I can't go much farther—" He was covered with sweat and his chest was heaving.

I felt like the lowest kind of a dog for having let him down. Molock might be an utter damned fool, but when the chips were down, he was in there trying for all of us. He had

built all his hopes on this trick with the needle gun.

Circling the dancing ground, he suddenly stopped, stood with his hands on his hips, chest heaving.

"You give up?" Shad Brisbee shouted. "You quit?"

"I do not — give up!" Molock wheezed.

"But you have stop dancing."

"I have danced your way—for two zonars. Turn about is fair play. Now you dance—my way."

"Your way?" Astonishment showed in all of Shad Brisbee's six eyes. "You humans don't dance, you don't know how."

"That's where you're wrong!" Molock answered. "We know how to dance in a new way—a way you stupid Venusians have never heard of."

I didn't know whether Shad Brisbee and the others were more excited over the insult or the thought of a new way to dance. Dancing was the blood of life to them.

"No way Venusians not know!" Shad Brisbee shouted. "We know *everything* about dancing, all steps, all—"

"Hell, you don't know this way," Molock interrupted. "I doubt if you could do it even if I taught it to you."

He was stalling for time but as he was stalling he was getting his strength back. Personally, it was my opinion that all he knew about dancing he had learned in a dime-a-dance hall in some space port on Earth, but if he wanted to teach this to the Venusians, it was all right with me.

"Show him to me!" Shad Brisbee screamed. "I can do him."

"All right. Watch this." Weaving forward with his hands up, Molock slugged Shad Brisbee on the jaw.

The startled Venusian almost turned a somersault as he went over backward. A cry of rage arose, both from Shad and the onlookers.

"Kill the human—"

"Slaughter him—"

"Now you try to hit me!" Molock ignored the cries for his blood. He weaved away with his fists up.

"That's not dancing!" Shad Brisbee roared.

"It's *our* kind of dancing, the human way to dance," Molock answered. "Yah, you big yellow-belly, you can't do it!"

I held my breath. The hopeless idiot—or maybe genius—was trying to turn a dancing contest into a boxing match. And he did. Screaming, Shad Brisbee charged, swung a tremendous hay-maker at Molock's jaw. Dodging, Molock slugged him behind the ear.

For the next fifteen minutes, to my awed and thunderously appreciative delight, I watched a Venusian get carved to pieces. Molock hit Shad Brisbee with everything up to and including his elbows and knees. He hit the Venusian in the gullet, the stomach, all over the head, and he knocked at least three eyes out of commission.

It took him exactly fifteen minutes to reduce a seven foot Venusian giant to the status of a whimpering child.

"I give . . . I give . . ." Shad Bris-

bee gasped. "You better dancer than me . . ."

"You will allow us to stay here unmolested, until we can get our ship repaired?" Molock demanded.

"Sure . . . Sure . . . I do that for you . . . if you do one thing for me . . ."

"What's that?"

"Here, I whisper to you . . ." Leaning forward, Shad whispered something in Molock's ear. The human looked a little surprised and startled. "Okay," he said. "It's a deal." Then, as if some secret thought was pleasing him tremendously, he began to grin.

"I'll say it's a deal," he said.

"Boys, we go home now!" Shad Brisbee shouted.

With awed and appreciative looks at the greatest dancer they had ever seen, they went streaming away from Shad Brisbee's dancing ground.

An equally awed and appreciative Wilkerson met us in the lock. Rita was there too, but Rita wasn't awed. She climbed right up into Molock's arms. "Did you get the pics?" he asked her.

"I got them, darling."

"Then we've got the world by the tail, honey. We've got the world by the tail."

It took two weeks to get our ship repaired. During this time, Molock was a mighty busy man, both taking pictures of his own selection and spending hours each day with Shad Brisbee. In spite of the fact that he had been licked, Shad harbored no animosity. He and Molock struck up a beautiful friendship.

When we finally got the ship repaired and was about ready to take off, a ship arrived from headquarters, carrying a most important visitor, a Mr. George Cooper, head of publicity. Wearing beautiful clothes, his fingers manicured, delicately perfumed—for he was a sensitive man—he descended from the lock.

Molock and Shad Brisbee greeted him.

Cooper smiled urbanely at them.

"He wants to dance, Shad," Molock said. "Try out your new step on him, the one I've been teaching you."

With one single forearm jab, Shad Brisbee knocked Mr. Cooper clear back into the ship the publicity man had just left. Then Shad turned eagerly to Molock.

"Tell me . . . do I dance him good . . . ?"

"Shad," Molock said, beaming. "You dance him beautiful."

The smile on Molock's face was a heavenly thing.

WELL, that's about it, except for the pics, the ones Rita took of the dance and other carefully selected horror shots of some of the less beautiful aspects of this Eden in the Sky.

I understand these pics are terrific box office on Earth. All we know is that they're kicking credits in to us so fast that we're all getting rich, Wilkerson, Molock, Mrs. Molock, and me.

Of course, we're not exactly trying to double-cross the publicity department of Trans-Space, Inc., but if you

(Concluded on page 157)

DIAGNOSIS

By R. A. Palmer

Take two men and one girl—the eternal triangle—and mix well with an oscilloscope gone haywire. What comes out? With ingredients like these, the result is adventure, terror and, of course, romance.

"WHAT time did you get to bed last night?"

"Oh, about . . . well, fairly early."

"Who were you out with?"

"Brannan."

"Then you didn't get to bed early! If you got in by three, it would be early, if I know Brannan."

"I got in *much* before three!"

"How much?"

"Oh . . . enough. You'd be surprised . . ."

"I'm sure I would! Mary, how do you expect us to get anywhere with this experiment if you come in dog-tired?"

"Donald Jensen, I'm not dog-tired. It's *you* who's got me in bed in the wee hours, not me! I came in early."

"Then why won't you state the exact time?" he was exasperated.

She smiled at him archly. "I don't remember, exactly."

"You don't seem to have much of a memory for anything when it

Illustrated by H. W. McCauley

comes to Brannan. What you see in a guy like that, I don't know."

"What's wrong with him?"

"Not a thing. He's a nice guy. Quiet, respectable, deep—and only one thing on his mind."

"What?"

He glared at her. "You're a smart girl," he said. "You work with me in this laboratory eight hours a day. You are engaged in a very complex experiment with the human brain, registering its waves and emanations in relation to thought, emotions and purely psychological relations. You've got a degree in psychology, another in psychiatry, a third in biology. You have written several advanced papers on the functions of the subconscious mind and its effect on the conscious mind. You have kept this job for three years, exacting as it is. You're a *brilliant* girl. And yet you can ask a stupid question like that!"

She smiled at him even more brightly. "What's stupid about it?"

He stared at her, then suddenly grinned back. "Okay, you're ribbing me. But dammit, you let a guy like Brannan soft-soap you and squire you all around the town, and eat it up, and when I pay you a legitimate compliment, you act like . . . like a *women*!"

"I'm sorry, Mr. Jensen, sir," she said. "I didn't mean to forget we are working in a scientific laboratory and that you are my boss. We are both men, working on a man's job—"

He groaned. "Okay, you win. But will you quit rubbing in that silly statement I made when I hired you? Sure, I said it was a man's job, and I wanted it handled like a man. But you needn't grow a beard over it!"

"Might be a good idea. Then when you fire me for being dog-tired, I could get a job in a circus."

"Yes, and if you bungle this morning's experiment, *I* may be able to get a job in a nuthouse!"

She was instantly contrite. "Oh Don, I won't! But why don't you do the hard work, and let me be the subject? Then if anything goes wrong, all your work won't be lost . . ."

"Nuts. You know as much about it as I do. And besides, what if I accidentally picked up your emotional seat and found out what time Brannan *really* brought you in last night?"

"Maybe you'd be surprised."

"I'd like to have Brannan under the machine," he said. "Maybe *you'd* be surprised."

"Mary Mason can take care of herself," she said.

He looked at her. "Yeah, I guess you *can*. So, how about dinner tonight?"

"Psychology class tonight."

"Tomorrow night."

"Choir practice."

"Thursday."

"Brannan."

"Friday."

"Washing and ironing."

"Saturday and Sunday."

"My days off."

"Then do you mind if we get to work?"

"That's what you hired me for."

He bent over his machine and uttered something in a muffled voice.

"What did you say?" she asked innocently.

"I wouldn't repeat it for a lady's ears," he snapped.

* * *

"THE pineal gland—the mystery gland of the human brain. Mystics call it the "third eye." Some say it is an atrophied eye, in the center of the forehead, others say it is a new sense man is developing, for use in the future."

"Shut up and let me put this electrode in place," said Mary. She swabbed at his forehead with a piece of cotton dipped in alcohol. Then she placed a small pad of felt dipped in water over the spot, and placed the silver electrode over it, clamped it in place on his head.

He grinned up at her. "Maybe when you turn on the power, and amplify the waves, I'll be able to read your mind."

"You'd better not. Unless you want me to quit and go home to San Francisco."

"What's the matter? Afraid to let anyone know what you're thinking?"

"No," she said firmly. "I just think my thoughts are private, that's all."

"Then what are you working on this thing with me for?"

"We're measuring brain waves, charting patterns, recording reactions. All this stuff about mind-reading is purely imagination. If that's what you're working toward, I'm afraid you're going to be disappointed."

He shrugged. "Got the oscilloscope hooked up?"

"Yes. And also the television screen and the camera. It'll amplify the wave patterns and project them . . . and in your case I'm convinced they'll all be . . ."

"Don't say it," he said hastily. "I don't need to read your brain waves to know what you're thinking."

"Nor do I need this machine to know what you are usually thinking of," she finished. "Now lie down and relax. I'm going to give you the lowest voltage first. I still don't think you are right in saying there's no real danger."

He lay back and closed his eyes.

Swiftly she went about, making adjustments, turning rheostats, watching indications on meters with narrowed eyes. Then, with a final check over the entire apparatus, she switched on the machine to lowest voltage.

Slowly the tubes warmed up, then there came a slight crackling from the loudspeaker, developing swiftly into a hum that rose and fell in a musical pattern. The green bands on the oscilloscope danced in time to the hum from the loudspeaker, and on the television screen an image began to form. By stages it grew, at first seeming to be a wavering white pillar, then a ghostly form, like a sheeted figure in a graveyard, then suddenly it began to clarify. A face emerged into view, and Mary almost gasped as she recognized it as her own. But the rest of the picture remained shadowy and indistinct.

"More power," murmured Mary. She turned the rheostat up a trifle further, and the hum from the loud-

speaker became even louder, more vibrant. On the screen the rest of the dancing figure coalesced and suddenly Mary jumped back from the screen. She turned toward Jensen where he lay, relaxing with a slight smile on his face, and uttered an exclamation.

"Don, you stop that!" She reached for the electrode to snatch it indignantly from his head. As she did so her fingers touched the metal. A bright flash came from the silver disk, raced up her arm, and her muscles tightened in shock. Her voice rose suddenly in a scream, and then, as Jensen jerked violently, under her hands, everything went black. She slumped beside him, unconscious, and the hum from the loudspeaker took on a higher, treble note that filled the whole laboratory with its vibrant pulsations.

* * *

HIGH over the valley came a keening note, drifting down the wind with a strange, heterodyning effect. It rose and fell with a definite cadence, as though it were a message.

Out of the murky darkness at the far end came a stirring; a gigantic groping, as of a monstrous something responding sluggishly to the call. Then, more swiftly, getting its bearings, the shadowed something began moving forward, gaining purpose, gaining massiveness, gaining speed. There was almost an anxious eagerness in its progress, as though it were an appetite sensing a free meal. At the same time there was something obscene in its haste, as though it anticipated more than mere food.

High on the south wall of the valley, atop the ramparts of the City, stood a figure in a red cloak, staring out over the valley's dark depths. He was tall, saturnine, and his face, though darkly handsome, was somehow malevolent, menacing, revolting. He was leering now, in ghastly anticipation of something that was to occur at the base of the cliffs at his feet. Behind him the keening of the Call still emanated from the lips of the gory idol enthroned in the Temple. He shook a fist at the darkness below.

"Feel now the dire might of the anger of Bra Naan!" he mouthed. "Die, Dahnjen Saan, despoiler of the Temple!" He turned to an accolyte. "Control the Beast, when he comes. Let him kill, but save the Priestess. Her punishment shall be mine alone." He licked his lips.

"Yes, Oh High One. The Beast shall move only as the Hypno-ray dictates." The accolyte hurried off into the Temple and in a moment, lancing down from above, came the beam of the ray, searching into the depths of the valley.

* * *

THE Priestess Marima Saan no longer struggled in Dahnjen's Saan's grasp, as he carried her amid the gloomy ramparts of the weird stone formations on the valley floor. Instead she wept, and clung to him.

"Why do you weep?" he asked harshly.

"Because now we both will die," she said. "Oh Dahnjen, why did you do it?"

"Because I do not propose that Bra Naan will remain forever as a barrier to our love," he said "Beyond the Valley his power does not exist. We are going there, to live our lives as they should be lived."

"Alone, in the Wild Land?"

He laughed. "It's not so wild as you think. I've been there. And nothing so fearsome exists that we cannot overcome it. Nor will anyone ever find us. The natives are friendly—I know them well."

Once more she began to weep. "But we'll never get there. We cannot escape from the Valley. It is guarded at the exit by the Beast. None have ever escaped him."

Dahjen patted the rifle strapped to his back. "Think you that the Priests alone know anything of science?" he asked.

She looked at the long barrel of the rifle. "What is it?"

"Something the Beast will not like," he promised. "And now, be still. Soon we will be on more level ground, and you will be able to walk."

Some minutes later he set her down, and she walked by his side. But as they moved deeper into the Valley, and into the gloom, a sound began behind them. It was a keening noise, shrill, penetrating, rising and falling with the chill of terror in its pitch.

"The Call!" cried Marima Saan. "Bra Naan calls the Beast! Now we shall surely die!" She clung to him.

He urged her forward again, looking swiftly about him as they went. Finally he spied the rock formation he wanted, and together they crouched in its shadow, waiting. Above them, lancing through the dark mists came the ray from atop the cliff. Dahnjen growled. "He wants to make sure—he's using the Hypno-ray. Good thing it only works on the Beast!"

Ahead of them now they heard sounds. Huge thumping sounds, earth-shaking motions as a monstrous body moved toward them in the darkness.

"The Beast comes!" said Marima tragically. "Oh Dahnjen, what shall we do?" She flung her arms around his neck and clung to him. "Is this the way our love will end?"

He bent his head and kissed her, then he grinned at her. "In just a moment you will learn more about that," he said. "But right now, you crouch down behind me and stay there. As soon as I can see, you'll find out that not only the Priests are possessed of wonderful instruments." He slipped the rifle from his shoulder and held it ready in his hands.

The searching ray swept over them several times, and the third pass found them. Momentarily it outlined them in its light, then swept on, as though in disdain. Finally it halted, down the valley, centered on a lumbering form, outlining it in the darkness so that its head could be seen looming high above the ground.

"The Beast!" breathed Marima.

And now, moving more purposeful-

ly, heading straight toward them, the monster came. Although they knew that it could not see them as yet, in the darkness, it did not deviate from its course, and they know that its feeble mind was under the control of the priests in the Temple far above them on the cliff wall. As it came, its jowls slavered, and its eyes glared ferociously. The light gleamed off its bared teeth, and reflected from the scaly ugliness of its hide.

Dahnjen Saan lifted his newly invented weapon, sighted carefully. Then as Marima Saan cringed back in terror, a sharp explosion echoed and re-echoed in the confines of the valley. A brilliant flash of light illuminated the scene for a moment, and then a second explosion came from the neck of the Beast. It faltered, uttered a tremendous roar of rage and pain, and blood gouted from its wound. Then roaring continuously, it charged forward once more. Again and again Dahnjen fired his rifle, and each time explosions shook the valley and jarred the oncoming monster. First one eye, then the other vanished in a shredding of gore, and then the mouth literally exploded, and the brilliant white of the bared teeth vanished in red blood.

The monster stopped, stood swaying, then came on again, but it was obvious that it had been seriously wounded, and was not guiding its own movements. Its giant head was turned sideways in an awkward stiffness, exposing its ear. Dahnjen aimed a shot directly into it, and the top of the head seemed to disintegrate. Brains flew through the air, mingled with red, and the monster halted again. For long moments it swayed, then with a crash that shook the rock beside which the two fugitives crouched, it collapsed to the floor of the valley and lay kicking gigantically, thrashing about in monstrous death throes.

"Dahnjen!" screamed Marima. "You've killed the Beast!"

He shouldered his rifle and lifted her to her feet. Then he bent and kissed her again. "It was what I had in mind," he admitted.

* * *

BEFORE them lay the narrow entrance to the Valley's lower end. Beyond the gap they saw blue sky and the rolling green of a forest.

"There," said Dahnjen, "lies our freedom. Once in the depths of that forest, we will be safe. Hundreds of miles away lies a land where the power of the priests does not reach."

Marima clasped his hand in hers and they both hastened forward.

But suddenly, across the narrow gap before them, rose a dozen red-roved figures. In the fore was the menacing form of Bra Naan. Leveled at them was the deadly crossbow of the Priesthood.

Marima uttered a cry of horror and leaped forward, placing her body between that of Bra Naan and Dahnjen. There was a sharp twang of a bowstring, and the arrow leaped from the priest's crossbow to bury itself in her breast. With a scream she sank to the ground. But as she did so, Dahnjen recovered from his frozen

surprise and whipped his rifle from his shoulder. Crouching behind her fallen body, he leveled it and pressed the trigger. Bra Naan's head exploded on his shoulders and disintegrated. He fell to the ground. And as he did so, the remaining priests charged forward. Methodically, cursing and sobbing, Dahnjen shot them, one by one, and as the last two reached him, he clubbed the rifle and swung it savagely about his head. There came a satisfying crunch as the skull of the man in the lead cracked and then the last man was upon him. Dahjen brought the stock of the rifle up under the man's chin and almost drove it through his skull. Then, the battle over, he stood there, swaying. Eyes glazing, he dropped to his knees and sagged over the body of Marima Saan, . . .

MARY MASON opened her eyes in bewilderment and looked up at Don Jensen bending over her. On his forehead the silver electrode was still strapped, but broken wires dangled from it, over one ear.

"What happened?" she asked.

"I don't exactly know," he said. "But I do know you suddenly dashed over and clouted me in the face. Then everything went black for what I judge was quite a period of time. I must have fallen off the couch, finally, and broken the wires, which stopped the machine. Anyway, I came to to find you lying beside me on the floor. Whatever was the idea of bashing me?"

A flood of red suddenly rose to her cheeks. "Now I remember," she said. "It was what you were thinking! It was on the screen!"

It was his turn to redden. "What was on the screen?"

"You know very well." She got to her feet, went over to the television screen and looked into it. It was blank.

He followed her over, removing the electrode from his forehead. He tossed it on the bench and looked at the clock. "Twenty minutes," he said.

"Twenty minutes what?" she asked.

"We were both out twenty minutes, and all the time the machine was running. So, whatever was recorded, the only evidence we'll have is the camera. Might as well run it back and see what you missed."

She stiffened. "Lord knows what's on it. If what you started out with is any criterion."

He grinned at her. "It's *my* thoughts, not yours, which are going to be exposed to the public, in this case you," he said. "And while I develop the film, I suggest you powder up a bit. You look a bit wan and tired . . ."

"Before I do," she said, "I want to warn you."

"About what?"

"It wasn't just lines and patterns and lights on the screen. It was actual pictures."

He gaped at her. "*Pictures!*"

"Yes. And it means at least one of the results of our experiments are going to be sensational. The pineal

gland may be the answer to perfect psychiatric diagnosis, because it seems that it translates the brain waves into actual pictures."

"The pineal gland—an eye in reverse!" he gasped.

"Exactly. And now, I'll leave you. And if you don't care to show me these particular pictures, I'll . . ."

"Judging from what I was thinking initially, it's going to be a pleasure!" he said.

She swept furiously from the room.

* * *

TWO hours later he seated her before the projection screen and went back to the projector.

"If you're sure this isn't going to embarrass you . . ." she began.

"It won't," he assured her. "I haven't seen any of it yet, except a few interesting glimpse I caught in the darkroom. But if you look like some of the things I saw . . ."

"Just what do you mean?"

"Wait and see." He switched on the projector and came back to sit down beside her.

As the first picture appeared on the screen, only an indistinct white pillar was visible. It swirled, thickened, grew more distinct. A face appeared. "It's you," he said.

"Yes," she said. "And then I turned up the power to bring the image up stronger."

The image on the screen clarified. He drew a long breath. "Nice!" he breathed. "And I gather that's where you socked me?"

"Don't you think I should have? Is that all you've ever got in your head . . ."

"Wait a minute," he said in a strained voice. "There's more of what's in my head, apparently. But I swear I never saw any of *that* before!"

The two watched in amazement as the dim confines of the weird valley flashed on the screen. They saw the shadowy bulk of the monster moving about. Then abruptly the scene changed, and Mary gasped.

"Brannan!" she choked. "But how evil he looks!"

"Oh, I don't know . . . That's the way I picture him . . ."

"In a long cloak?" she asked.

"And with a dagger," he agreed.

Now Mary gasped again. "It's you—carrying me down a cliff!"

"Regular Batman, ain't I?"

She snorted. And snorted again as the film reached the point where she threw her arms around his neck and received his kiss.

"You don't like that?" he asked.

She tossed her head, but didn't reply. Her eyes were intent on the screen. Suddenly she snickered. "Look at you!" she exclaimed. "You'd think you were preparing to protect me from the Devil, or something, the way you push me behind that rock and get ready with your gun. What's coming next—Indians?"

"Better than that," he said drily. "If that's an Indian, I'm a pop bottle cork . . ."

She screamed involuntarily, then caught herself. "What a foul looking beast," she said. "So that's what you

have in your mind!"

"Looks like I don't intend to keep him there," he remarked. He watched with interest as his shots took effect on the monster and it crashed to the valley floor. "Too bad we don't have sound effects."

Now she began to shout with laughter. "Kissing again!" she said "The hero has slain the dragon, and even while he stands beside its kicking corpse, he embraces the fair maiden. Ye Gods, Don, is that the *brain* I'm working for? You *really* need a psychiatrist!"

"What do you mean?" he asked angrily.

"Why, it's all so obvious. Here you are, carrying a torch for me, and taking out your frustration in comic-book daydreams. And the protagonist in your dream is poor Brannan, of whom you are obviously jealous. Why, Brannan doesn't mean a thing to me! So, here you are, rescuing me —or stealing me—from the evil Brannan, and slaying the dragon he sends out to kill us both, and proceeding on your merry way toward a happily-ever-after ending. See, there's the Garden of Eden at the end of the dark valley . . ."

"And there's Brannan again, to foul up the works," said Jensen. "Looks like my daydreams aren't exactly logical . . ."

But he, too, stopped in sudden horror as the film ground on and showed Mary leaping to her death to save him from the priest's arrow. Neither of them said a word as the wild battle that followed was enacted before them, to the final scene. They watched his body topple down and the screen go blank, then he got up and snapped off the projector and turned up the lights.

"If you ask me," he said, "those last weren't *my* thoughts. And if I remember rightly, when I came to, your hand was still clutching the wires to the machine. Also, I'm hanged if I'd ever even *dream* of you being killed. I'd have mopped up on that gang and borne you triumphantly to a leafy bower and . . "

". . and what?" she said faintly.

"We've got a wonderful thing here," he said. "A tremendous method of psychiatric diagnoses. We can project every desire, every frustration, every concealed emotion, directly on a screen, and see with our own eyes exactly what is bothering the subconscious of the patient. We can see exactly what they *really* want. What they *really* feel. Like . . ."

". . . like what?" she asked again.

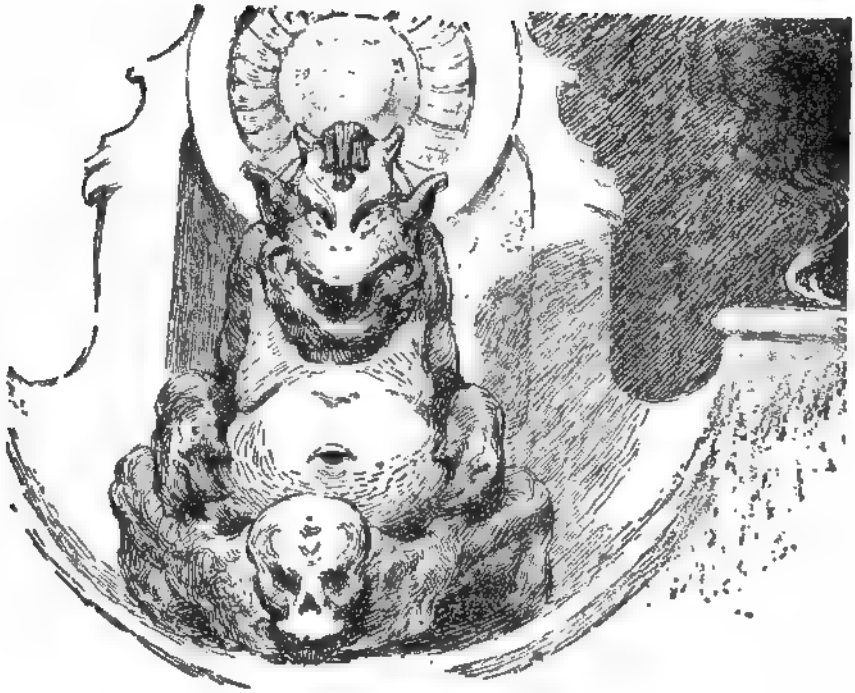
He bent and kissed her. "How would you like to raise a flock of our kids, while I make a lot of money plowing up the subconscious corn in other people?"

"I'd have agreed long ago, if you'd asked me," she said.

"I'd have asked long ago, if you hadn't kept on going out with Brannan," he retorted.

"What do you think I went out with him for!"

He stood nonplussed for a moment, then he grinned. "Maybe we better strap on the electrodes again," he said. "There's a lot of corn left in both of us!"



TEDRIC

By

E. E. SMITH, Ph. D.

Aided by Llosir, his strange, new god, Tedric enters into battle with Sarpedion, the sacrifice-demanding god of Lomarr in this story of science and swash-buckling adventure which marks the return of "Doc" Smith, author of the Skylark series, Lensman series, etc.

Illustrated by J. Allen St. John

"THE critical point in time of mankind's whole existence is there — RIGHT THERE!" Prime Physicist Skandos slashed his red pencil across the black trace of the chronoviagram. "WHY must man be so stupid? Anyone with three brain cells working should know that for the strength of an individual he should be fed; not bled; that for the strength of a race its virgins should be bred, not sacrificed to propitiate figmental deities. And it would be so easy to straighten things out—nowhere in all reachable time does any other one man occupy such a tremendously—such a uniquely—keystone position!"

"Easy, yes," his assistant Furmin agreed. "It is a shame to let Tedric die with not one of his tremendous potentialities realized. It would be easy and simple to have him discover carburization and the necessary techniques of heat-treating. That freak meteorite need not lie there unsmelted for another seventy years. However, simple carburization was not actually discovered until two generations later, by another smith in another nation; and you know, Skandos, that there can be no such thing as a minor interference with the physical events of the past. Any such, however small-seeming, is bound to be catastrophically major."

"I know that." Skandos scowled blackly. "We don't know enough about time. We don't know what would happen. We have known how to do it for a hundred years, but have been afraid to act because in all that time no progress whatever has been made on the theory."

He paused, then went on savagely: "But which is better, to have our entire time-track snapped painlessly out of existence—if the extremists are right—or to sit helplessly on our fat rumps wringing our hands while we watch civilization build up to its own total destruction by lithium-tritiide bombs? Look at the slope of that curve—ultimate catastrophe is only one hundred eighty seven years away!"

"But the Council would not permit it. Nor would the School."

"I know that, too. That is why I am not going to ask them. Instead, I am asking you. We two know more of time than any others. Over the years I have found your judgment good. With your approval I will act now. Without it, we will continue our futile testing—number eight hundred eleven is running now, I believe?—and our aimless drifting."

"You are throwing the entire weight of such a decision on me?"

"In one sense, yes. In another, only half, since I have already decided."

"Go ahead."

"So be it."

"TEDRIC, awaken!"

The Lomarrian ironmaster woke up; not gradually and partially, like one of our soft modern urbanites, but instantaneously and completely, as does the mountain wild-cat. At one instant he lay, completely relaxed, sound asleep; at the next he had sprung out of bed, seized his

sword and leaped half-way across the room. Head thrown back, hard blue eyes keenly alert, sword-arm rock-steady he stood there, poised and ready. Beautifully poised, upon the balls of both feet; supremely ready to throw into action every inch of his six-feet-four, every pound of his two-hundred-plus of hard meat, gristle, and bone. So standing, the smith stared motionlessly at the shimmering, almost invisible thing hanging motionless in the air of his room, and at its equally tenuous occupant.

"I approve of you, Tedric." The thing—apparition—whatever it was—did not speak, and the Lomarrian did not hear; the words formed themselves in the innermost depths of his brain. "While you perhaps are a little frightened, you are and have been completely in control. Any other man of your nation—yes, of your world—would have been scared out of what few wits he has."

"You are not one of ours, Lord." Tedric went to one knee. He knew, of course, that gods and devils existed; and, while this was the first time that a god had sought him out personally, he had heard of such happenings all his life. Since the god hadn't killed him instantly, he probably didn't intend to—right away, at least. Hence: "No god of Lomarr approves of me. Also, our gods are solid and heavy. What do you want of me, strange god?"

"I'm not a god. If you could get through this grill, you could cut off my head with your sword and I would die."

"Of course. So would Sar . . ." Tedric broke off in the middle of the word.

"I see. It is dangerous to talk?"

"Very. Even though a man is alone, the gods and hence the priests who serve them have power to hear. Then the man lies on the green rock and loses his brain, liver, and heart."

"You will not be overheard. I have power enough to see to that."

Tedric remained silent.

"I understand your doubt. Think, then; that will do just as well. What is it that you are trying to do?"

"I wonder how I can hear when there is no sound, but men cannot understand the powers of gods. I am trying to find or make a metal that is very hard, but not brittle. Copper is no good, I cannot harden it enough. My soft irons are too soft, my hard irons are too brittle; my in-betweens and the melts to which I added various flavorings have all been either too soft or too brittle, or both."

"I gathered that such was your problem. Your wrought iron is beautiful stuff; so is your white cast iron; and you would not, ordinarily, in your lifetime, come to know anything of either carburization or high-alloy steel, to say nothing of both. I know exactly what you want, and I can show you exactly how to make it."

"You can, Lord?" The smith's eyes flamed. "And you will?"

"That is why I have come to you, but whether or not I will teach you depends on certain matters which I have not been able entirely to clarify. What do you want it for—that is,

what, basically, is your aim?"

"Our greatest god, Sarpedion, is wrong and I intend to kill him." Tedric's eyes flamed more savagely, his terrifically muscled body tensed.

"Wrong? In what way?"

"In every way!" In the intensity of his emotion the smith spoke aloud. "What good is a god who only kills and injures? What a nation needs, Lord, is *people*—people working together and not afraid. How can we of Lomarr *ever* attain comfort and happiness if more die each year than are born? We are too few. All of us —except the priests, of course—must work unendingly to obtain only the necessities of life."

"This bears out my findings. If you make high-alloy steel, exactly what will you do with it?"

"If you give me the god-metal, Lord, I will make of it a sword and armor—a sword sharp enough and strong enough to cut through copper or iron without damage; armor strong enough so that swords of copper or iron cannot cut through it. They must be so because I will have to cut my way alone through a throng of armed and armored mercenaries and priests."

"Alone? Why?"

"Because I cannot call in help; cannot let anyone know my goal. Any such would lie on the green stone very soon. They suspect me; perhaps they know. I am, however, the best smith in all Lomarr, hence they have slain me not. Nor will they, until I have found what I seek. Nor then, if by the favor of the gods—or by *your* favor, Lord—the metal be good enough."

"It will be, but there's a lot more to fighting a platoon of soldiers than armor and a sword, my optimistic young savage."

"That the metal be of proof is all I ask, Lord," the smith insisted, stubbornly. "The rest of it lies in my care."

"So be it. And then?"

"Sarpedion's image, as you must already know, is made of stone, wood, copper, and gold—besides the jewels, of course. I take his brain, liver, and heart, flood them with oil, and sacrifice them . . ."

"Just a minute! Sarpedion is not alive and never has been; does not, as a matter of fact, exist. You just said, yourself, that his image was made of stone and copper and . . ."

"Don't be silly, Lord. Or art testing me? Gods are spirits; bound to their images, and in a weaker way to their priests, by linkages of spirit force. Life force, it could be called. When those links are broken, by fire and sacrifice, the god may not exactly die, but he can do no more of harm until his priests have made a new image and spent much time and effort in building up new linkages. One point now settled was bothering me; what god to sacrifice him to. I'll make an image for you to inhabit, Lord, and sacrifice him to you, my strange new god. You will be my only god as long as I live. What is your name, Lord? I can't keep on calling you 'strange god' forever."

"My name is Skandos."

"S . . . Sek . . . That word rides ill

on the tongue. With your permission, Lord, I will call you Llosir."

"Call me anything you like, except a god. I am *not* a god."

"You are being ridiculous, Lord Llosir," Tedric chided. "What a man sees with his eyes, hears with his ears —especially what a man hears *without* ears, as I hear now—he knows with certain knowledge to be the truth. No mere man could possibly do what you have done, to say naught of what you are about to do."

"Perhaps not an ordinary man of your . . ." Skandos almost said "time," but caught himself ". . . of your culture, but I am ordinary enough and mortal enough in my own."

"Well, that could be said of all gods, everywhere." The smith's mien was quiet and unperturbed; his thought was loaded to saturation with unshakable conviction.

Skandos gave up. He could argue for a week, he knew, without making any impression whatever upon what the stubborn, hard-headed Tedric knew so unalterably to be the truth.

"But just one thing, Lord," Tedric went on with scarcely a break. "Have I made it clear that I intend to stop human sacrifice? That there is to be no more of it, even to you? We will offer you anything else—*anything* else—but not even your refusal to give me the god-metal will change my stand on that."

"Good! See to it that nothing ever does change it. As to offerings or sacrifices, there are to be none, of any kind. I do not need, I do not want, *I will not have* any such. That is final. Act accordingly."

"Yes, Lord. Sarpedion is a great and powerful god, but art *sure* that his sacrifice alone will establish linkages strong enough to last for all time?"

Skandos almost started to argue again, but checked himself. After all, the proposed sacrifice was necessary for Tedric and his race, and it would do no harm.

"Sarpedion will be enough. And as for the image, that isn't necessary, either."

"Art wrong, Lord. Without image and temple, everyone would think you a small, weak god, which thought can never be. Besides, the image might make it easier for me to call on you in time of need."

"You can't call me. Even if I could receive your call, which is very doubtful, I wouldn't answer it. If you ever see me or hear from me again, it will be because I wish it, not you." Skandos intended this for a clincher, but it didn't turn out that way.

"Wonderful!" Tedric exclaimed. "All gods act that way, in spite of what they—through their priests—say. I am overwhelmingly glad that you are being honest with me. Hast found me worthy of the god-metal, Lord Llosir?"

"Yes, so let's get at it. Take that

biggest chunk of 'metal-which-fell-from-the-sky'—you'll find it's about twice your weight . . ."

"But I have never been able to work that particular piece of metal, Lord"

"I'm not surprised. Ordinary meteorites are nickel-iron, but this one carries two additional and highly unusual elements, tungsten and vanadium, which are necessary for our purpose. To melt it you'll have to run your fires a lot hotter. You'll also have to have a carburizing pot and willow charcoal and metallurgical coke and several other things. We'll go into details later. That green stone from which altars are made—you can secure some of it?"

"Any amount of it."

"Of it take your full weight. And of the black ore of which you have occasionally used a little, one-fourth of your weight . . ."

The instructions went on, from ore to finished product in complete detail, and at its end:

"If you follow these directions carefully you will have a high-alloy-steel — chrome-nickel-vanadium-molybdenum-tungsten steel, to be exact —case-hardened and heat-treated; exactly what you need. Can you remember them all?"

"I can, Lord Never have I dared write anything down, so my memory is good. Every quantity you have given me, every temperature and step and process and item; they are all completely in mind."

"I go, then. Good-bye."

"I thank you, Lord Llosir. Good-bye." The Lomarrian bowed his head, and when he straightened up his incomprehensible visitor was gone.

Tedric went back to bed; and, strangely enough, was almost instantly asleep. And in the morning after his customary huge breakfast of meat and bread and milk, he went to his sprawling establishment, which has no counterpart in modern industry, and called his foreman and his men together before they began the day's work

"A strange god named Llosir came to me in the night and showed me how to make better iron." he told them in perfectly matter-of-fact fashion, "so stop whatever you're doing and tear the whole top off of the big furnace. I'll tell you exactly how to rebuild it."

The program as outlined by Skandos went along without a hitch until the heat from the rebuilt furnace began to come blisteringly through the crude shields. Then even the foreman, faithful as he was, protested against such unheard-of temperatures and techniques.

"It *must* be that way!" Tedric insisted. "Run more rods across, from there to there, to hold more hides and blankets. You four men fetch water. Throw it over the hides and blankets and him who turns the blower Take shorter tricks in the hot places—here, I'll man the blower myself until the heat wanes somewhat."

He bent his mighty back to the crank, but even in that raging inferno of heat he kept on talking.

"Knowst my iron sword, the one

I wear, with rubies in the hilt?" he asked the foreman. That worthy did, with longing; to buy it would take six months of a foreman's pay. "This furnace must stay this hot all day and all of tonight, and there are other things as bad. But 'twill not take long. Ten days should see the end of it"—actually seven days was the schedule, but Tedric did not want the priests to know that— "but for those ten days matters *must* go exactly as I say. Work with me until this iron is made and I give you that sword. And of all the others who shirk not, each will be given an iron sword —this in addition to your regular pay. Dost like the bargain?"

They liked it.

Then, during the hours of lull, in which there was nothing much to do except keep the furious fires fed, Tedric worked upon the image of his god. While the Lomarrian was neither a Phidias nor a Praxiteles, he was one of the finest craftsmen of his age. He had not, however, had a really good look at Skandos' face. Thus the head of the image, although it was a remarkably good piece of sculpture, looked more like that of Tedric's foreman than like that of the real Skandos. And with the head, any resemblance at all to Skandos ceased. The rest of the real Skandos was altogether too small and too pitifully weak to be acceptable as representative of any Lomarrian's god; hence the torso and limbs of the gleaming copper statue were wider, thicker, longer, bigger, and even more fantastically muscled than were Tedric's own. Also, the figure was hollow; filled with sand throughout except for an intricately-carved gray sandstone brain and red-painted hardwood liver and heart.

"THEY come, master, to the number of eleven," his lookout boy came running with news at mid-afternoon of the seventh day. "One priest in copper, ten Tarkians in iron, a five each of bowmen and spearmen."

Tedric did not have to tell the boy where to go or what to do or to hurry about it; as both ran for the ironmaster's armor the youngster was two steps in the lead. It was evident, too, that he had served as squire before, and frequently; for in seconds the erstwhile half-naked blacksmith was fully clothed in iron.

Thus it was an armored knight, leaning negligently upon a fifteen-pound forging hammer, who waited outside the shop's door and watched his eleven visitors approach.

The banner was that of a priest of the third rank. Good—they weren't worried enough about him yet, then, to send a big one. And only ten mercenaries—small, short, bandy-legged men of Tark—good enough fighters for their weight, but they didn't weigh much. This wouldn't be too bad.

The group came up to within a few paces and stopped.

"Art in armor, smith?" the discomfited priest demanded. "Why?"

"Why not? 'Tis my habit to greet guests in apparel of their own choosing."

There was a brief silence, then:

"To what do I owe the honor of this visit, priest?" he asked, only half sarcastically. "I paid, as I have always paid, the fraction due."

"True. 'Tis not about a fraction I come. It is noised that a strange god appeared to you, spoke to you, instructed you in your art; that you are making an image of him."

"I made no secret of any of these things. I hide nothing from the great god or his minions, nor ever have. I have nothing to hide."

"Perhaps. Such conduct is very unseemly—decidedly ungodlike. He should not have appeared to you, but to one of us, and in the temple."

"It is un-Sarpedionlike, certainly—all that Sarpedion has ever done for me is let me alone, and I have paid heavily for that."

"What bargain did you make with this Llosir? What was the price?"

"No bargain was made. I thought it strange, but who am I, an ordinary man, to try to understand the actions or the reasonings of a god? There will be a price, I suppose. Whatever it is, I will pay it gladly."

"You will pay, rest assured; not to this Llosir, but to great Sarpedion. I command you to destroy that image forthwith."

"You do? Why? Since when has it been against the law to have a personal god? Most families of Lomarr have them."

"Not like yours. Sarpedion does not permit your Llosir to exist."

"Sarpedion has nothing to say about it. Llosir already exists. Is the great god so weak, so afraid, so unable to defend himself against a one-man stranger that he . . ."

"Take care, smith—silence! That is rankest blasphemy!"

"Perhaps; but I have blasphemed before and Sarpedion hasn't killed me yet. Nor will he, methinks; at least until his priests have collected his fraction of the finest iron ever forged and which I only can make."

"Oh, yes, the new iron. Tell me exactly how it is made."

"You know better than to ask that question, priest. That secret will be known only to me and my god."

"We have equipment and tools designed specifically for getting information out of such as you. Seize him, men, and smash that image!"

"HOLD!" Tedric roared, in such a voice that not a man moved. "If anybody takes one forward step, priest, or makes one move toward spear or arrow, your brains will spatter the walls across the street. Can your copper helmet stop this hammer? Can your girl-muscled, fat-bellied priest's body move fast enough to dodge my blow? And most or all of those runty little slavelings behind you," waving his left arm contemptuously at the group, "will also die before they cut me down. And if I die now, of what worth is Sarpedion's fraction of a metal that will never be made? Think well, priest!"

Sarpedion's agent studied the truculent, glaring ironmaster for a long two minutes. Then, deciding that the proposed victim could not be taken alive, he led his crew back the way

they had come, trailing fiery threats. And Tedric, going back into his shop, was thoroughly aware that those threats were not idle. So far, he hadn't taken too much risk, but the next visit would be different—very different. He was exceedingly glad that none of his men knew that the pots they were firing so fiercely were in fact filled only with coke and willow charcoal; that armor and sword and shield and axe and hammer were at that moment getting their final heat treatment in a bath of oil, but little hotter than boiling water, in the sanctum to which he retired, always alone, to perform the incantations which his men—and hence the priests of Sarpedion—believed as necessary as any other part of the metallurgical process.

That evening he selected a smooth, fine-grained stone and whetted the already almost perfect cutting edge of his new sword; an edge which in cross-section was rather more like an extremely sharp cold-chisel than a hollow-ground razor. He fitted the two-hand grip meticulously with worked and tempered rawhide, thrilling again and again as each touch of an educated and talented finger-tip told him over and over that here was some thing brand new in metal—a real god-metal.

A piece of flat wrought iron, about three-sixteenths by five inches and about a foot long, already lay on a smooth and heavy hardwood block. He tapped it sharply with the sword's edge. The blade rang like a bell; the iron showed a bright new scar; that was all. Then a moderately heavy two-handed blow, about as hard as he had ever dared swing an iron sword. Still no damage. Then, heart in mouth, he gave the god-metal its final test; struck with everything he had, from heels and toes to fingertips. He had never struck such a blow before, except possibly with a war-axe or a sledge. There was a ringing clang, two sundered slabs of iron flew to opposite ends of the room, the atrocious blade went on, half an inch deep into solid oak. He wrenched the weapon free and stared at the unmarred edge. UNMARRED! For an instant Tedric felt as though he were about to collapse; but sheerest joy does not disable.

There was nothing left to do except make the links, hinge-pins, and so on for his armor, which did not take long. Hence, when the minions of Sarpedion next appeared, armored this time in the heaviest and best iron they had and all set to overwhelm him by sheer weight of numbers, he was completely ready. Nor was there palaver or parley. The attackers opened the door, saw the smith, and rushed.

But Tedric, although in plain sight, had chosen the battleground with care. He was in a corner. At his back a solid-walled stairway ran up to the second floor. On his right the wall was solid for twenty feet. On his left, beyond the stairwell, the wall was equally solid for twice as far. They would have to come after him, and as he retreated, they would be fighting their way up, and not more than

two at a time.

This first swing, horizontal and neck-high, was fully as fierce-driven as the one that had cloven the test-piece and almost ruined his testing-block. The god-metal blade scarcely slowed as it went through armor and flesh and bone. In fact, the helmet and the head within it remained in place upon the shoulders for what seemed like seconds before the body toppled and the arteries spurted crimson jets.

He didn't have to hit so hard, then. Good. Nobody could last very long, the way he had started out. Wherefore the next blow, a vertical chop, merely split a man to the chin instead of to the navel; and the third, a back-hand return, didn't quite cut the victim's head clear off.

And the blows his steel was taking, aimed at head or neck or shoulder, were doing no harm at all. In fact, except for the noise, they scarcely bothered him. He had been designing and building armor for five years, and this was his masterpiece. The helmet was heavily padded; the shoulders twice as much so. He had sacrificed some mobility—he could not turn his head very far in either direction—but the jointing was such that the force of any blow on the helmet, from whatever direction coming, was taken by his tremendously capable shoulders.

The weapons of the mercenaries could not dent, could not even nick, that case-hardened high-alloy steel. Swords bent, broke, twisted; hammers and axes bounced harmlessly off. Nevertheless the attackers pressed forward; and, even though each blow of his devasting sword took a life, Tedric was forced backward up the stairs, step by step.

Then there came about that for which he had been waiting. A copper-clad priest appeared behind the last rank of mercenaries, staring upward at something behind the ironmaster, beckoning frantically. The priest had split his forces; had sent part of them by another way to the second floor to trap him between two groups; had come in close to see the trap sprung. This was it.

Taking a couple of quick, upward, backward steps, he launched himself into the air with all the power of his legs. And when two hundred and thirty pounds of man, dressed in eighty or ninety or a hundred pounds of steel, leaps from a height of eight or ten feet upon a group of other men, those other men go down.

Righting himself quickly, Tedric sprang toward the priest and swung; swung with all the momentum of his mass and speed and all the power of his giant frame; swung as though he were concentrating into the blow all his hatred of Sarpedion and everything for which Sarpedion stood—which in fact he was.

And what such a saber-scimitar, so driven, did to thin, showy copper armor and to the human flesh beneath it, is simply nothing to dwell upon here.

"HOLD!" he roared at the mercenaries, who hadn't quite decided whether or not to resume the attack,

and they held.

"Bu . . . bub . . . but you're dead!" the non-com stuttered. "You *must* be—the great Sarpedion would . . ."

"A right lively corpse I!" Tedric snarled. "Your Sarpedion, false god and coward, drinker of blood and slayer of the helpless, is weak, puny, and futile beside my Llosir. Hence, under Llosir's shield and at Llosir's direction, I shall this day kill your foul and depraved god; shall send him back to the grisly hell from whence he came.

"Nor do I ask you to fight for me. Nor would I so allow; for I trust you not, though you swore by all your gods. Do you fight for pleasure or for pay?"

A growl was the only answer, but that was answer enough.

"He of Sarpedion who paid your wages lies there dead. All others of his ilk will die ere this day's sunset. Be advised, therefore; fight no more until you know who pays. Wouldst any more of you be split like whitefish ere I go? Time runneth short, but I would stay and oblige if pressed."

He was not pressed.

Tedric whirled and strode away. Should he get his horse, or not? No. He had never ridden mighty Dreegor into danger wearing armor less capable than his own, and he wouldn't begin now.

The Temple of Sarpedion was a tall, narrow building, with a far-flung outside staircase leading up to the penthouse-like excrescence in which the green altar of sacrifice was.

Tedric reached the foot of that staircase and grimly, doggedly, cut his way up it. It was hard work, and he did not want to wear himself out too soon. He might need a lot, and suddenly, later on, and it would be a good idea to have something in reserve.

As he mounted higher and higher, however, the opposition became less and less instead of greater and greater, as he had expected. Priests were no longer there—he hadn't seen one for five minutes. And in the penthouse itself, instead of the solid phalanx of opposition he had *known* would bar his way, there were only half a dozen mercenaries, who promptly turned tail and ran.

"The way is clear! Hasten!" Tedric shouted, and his youthful squire rushed up the ramp with his axe and hammer.

And with those ultra-hard, ultra-tough implements Tedric mauled and chopped the image of the god.

DEVANN, Sarpedion's high priest, was desperate. He believed thoroughly in his god. Equally thoroughly, however, he believed in the actuality and in the power of Tedric's new god. He had to, for the miracle he had performed spoke for itself.

While Sarpedion had not appeared personally in Devann's lifetime, he had so appeared many times in the past; and by a sufficiently attractive sacrifice he could be persuaded to appear again, particularly since this appearance would be in self-defense.

No slave, or any number of slaves, would do. Nor criminals. No ordinary virgin of the common people. This sacrifice must be of supreme quality. The king himself? Too old and tough and sinful. Ah . . . the king's daughter . .

At the thought the pit of his stomach turned cold. However, desperate situations require desperate remedies. He called in his henchmen and issued orders

THUS it came about that a towering figure clad in flashing golden armor—the king himself, with a few courtiers scrambling far in his wake—dashed up the last few steps just as Tedric was wrenching out Sarpedion's liver.

"Tedric, attend!" the monarch panted. "The priests have taken Rhoann and are about to give her to Sarpedion!"

"They can't, sire. I've just killed Sarpedion, right here."

"But they *can!* They've taken the Holiest One from the Innermost Shrine; have enshrined him on the Temple of Scheene. Slay me those traitor priests before they slay Rhoann and you may . . ."

Tedric did not hear the rest of it, nor was his mind chiefly concerned with the plight of the royal maid. It was Sarpedion he was after. With a blistering oath he dropped the god's liver, whirled around and leaped down the stairway. It would do no good to kill only one Sarpedion. He would have to kill them both, especially since the Holiest One was the major image. The Holiest One . . . the Sarpedion never before seen except by first-rank priests . . . of *course* that would be the one they'd use in sacrificing a king's daughter. He should have thought of that himself, sooner, damn him for a fool! It probably wasn't too late yet, but the sooner he got there, the better would be his chance of winning.

Hence he ran; and, farther and farther behind him, came the king and the courtiers.

Reaching the Temple of Scheene, he found to his immense relief that he would not have to storm that heavily-manned rampart alone. A full company of the Royal Guard was already there. Battle was in progress, but very little headway was being made against the close-packed defenders of the god, and Tedric knew why. A man fighting against a god was licked before he started and knew it. He'd have to build up their morale

But did he have time? Probably. They couldn't hurry things too much without insulting Sarpedion, for the absolutely necessary ceremonies took a lot of time. Anyway, he'd have to take the time, or he'd never reach the god.

"Art Lord Tedric?" A burly captain disentangled himself from the front rank and saluted.

"I'm Tedric, yes. Knewst I was coming?"

"Yes, Lord. Orders came by helio but now. You are in command; you speak with the voice of King Phagon himself."

"Good. Call your men back thirty paces. Pick me out the twelve or fifteen strongest, to lead.

"Men of the Royal Guard!" He raised his voice to a volume audible not only to his own men, but also to all the enemy. "Who is the most powerful swordsman among you? . . . Stand forward . . . This armor I wear is not of iron, but of god-metal, the metal of Llosir, my personal and all-powerful god. That all here may see and know, I command you to strike at me your shrewdest, most effective, most powerful blow."

The soldier, after a couple of false starts, did manage a stroke of sorts.

"I said *strike!*" Tedric roared. "Think you ordinary iron can harm the personal metal of a god? Strike where you please, at head or neck or shoulder or guts, but strike as though you meant it! Strike to kill! Shatter you sword! STRIKE!"

Convulsively, the fellow struck, swinging for the neck, and at impact his blade snapped into three pieces. A wave of visible relief swept over the Guardsmen; one of dismay and shock over the ranks of the foe.

"I implore pardon, Lord," the soldier begged, dropping to one knee.

"Up, man! 'Tis nothing, and by my direct order. Now, men, I can tell you a thing you would not have fully believed before. I have just killed half of Sarpedion and he could not touch me. I am about to kill his other half—you will see me do it. Come what may of god or devil you need not fear it, for I and all with me fight under Llosir's shield. We men will have to deal only with the flesh and blood of those runty mercenaries of Tark."

He studied the enemy formation briefly. A solid phalanx of spearmen, with shields latticed and braced; close-set spears out-thrust and anchored. Strictly defensive; they hadn't made a move to follow nor thrown a single javelin when the king's forces withdrew. This wasn't going to be easy, but it *was* possible

"We will make the formation of the wedge, with me as point," he went on. "Sergeant, you will bear my sword and hammer. The rest of you will ram me into the center of that phalanx with everything of driving force that in you lies. I will make and maintain enough of opening. We'll go up that ramp like a fast ship plowing through waves. Make wedge! Drive!"

Except for his armor of god-metal Tedric would have been crushed flat by the impact of the flying wedge against the soldiery packed so solidly on the stair. Several of the foe were so crushed, but the new armor held. Tedric could scarcely move his legs enough to take each step, his body was held as though in a vise, but his giant arms were free; and by dint of short, savage, punching jabs and prods and strokes of his atrocious war-axe he made and maintained the narrow opening upon which the success of the whole operation depended. And into that constantly-renewed opening the smith was driven—irresistibly driven by the concerted and synchronized strength of the strongest men of Lomarr's Royal Guard.

The result was not exactly like

.nat of a diesel-powered snowplow, but it was good enough. The mercenaries did not flow over the sides of the ramp in two smooth waves. However, unable with either weapons or bodies to break through the slanting walls of iron formed by the smoothly-overlapping shields of the Guardsmen, over the edges they went, the living and the dead.

The dreadful wedge drove on.

As the Guardsmen neared the top of the stairway the mercenaries disappeared—enough of that kind of thing was a great plenty— and Tedric, after a quick glance around to see what the situation was, seized his sword from the bearer. Old Devann had his knife aloft, but in only the third of the five formal passes. Two more to go.

"Kill those priests!" he snapped at the captain. "I'll take the three at the altar—you fellows take the rest of them!"

When Tedric reached the green altar the sacrificial knife was again aloft; but the same stroke that severed Devann's upraised right arm severed also his head and his whole left shoulder. Two more whistling strokes and a moment's study of the scene of action assured him that there would be no more sacrifice that day. The King's Archers had followed close behind the Guards; the situation was well in hand.

He exchanged sword for axe and hammer, and furiously, viciously, went to work on the god. He yanked out the Holiest One's brain, liver, and heart; hammered and chopped the rest of him to bits. That done, he turned to the altar—he had not even glanced at it before.

Stretched taut, spread-eagled by wrists and ankles on the reeking, blood-fouled, green horror-stone, the Lady Rhoann lay; her yard-long, thick brown hair a wide-flung riot. Six priests had not immobilized Rhoann of Lomarr without a struggle. Her eyes went from shattered image to blood-covered armored giant and back to image; her face was a study of part-horrified, part-terrified part-worshipful amazement.

He slashed the ropes, extended his mailed right hand. "Art hurt, Lady Rhoann?"

"No. Just stiff." Taking his hand, she sat up—a bit groggily—and flexed wrists and ankles experimentally; while, behind his visor, the man stared and stared.

Tall — wide but trim — superbly made—a true scion of the old blood —Llosir's liver, what a woman! He had undressed her mentally more than once, but his visionings had fallen short, far short, of the entrancing, the magnificent truth. *What* a woman! A virgin? Huh! Technically so, perhaps . . . more shame to those pusillanimous half-breed midgets of the court . . . if *he* had been born noble . . .

She slid off the altar and stood up, her eyes still dark with fantastically mixed emotions. She threw both arms around his armored neck and snuggled close against his steel, heedless that breasts and flanks were being smeared anew with half-dried blood.

He put an iron-clad arm around her, moved her arm enough to open his visor, saw sea-green eyes, only a few inches below his own, staring straight into his.

The man's quick passion flamed again. Gods of the ancients, what a woman! *There* was a mate for a full-grown man!

"Thank the gods!" The king dashed up, panting, but in surprisingly good shape for a man of forty-odd who had run so far in gold armor. "Thanks be to all the gods you were in time!"

"Just barely, sire, but in time."

"Name your reward, Lord Tedric. I will be glad to make you my son."

"Not that, sire, ever. If there's anything in this world or the next I *don't* want to be, it's Lady Rhoann's brother."

"Make him Lord of the Marches, father," the girl said, sharply. "Knowst what the sages said."

" 'Twould be better," the monarch agreed. "Tedric of old Lomarr, I appoint you Lord of the Upper, the Middle, and the Lower Marches, the Highest of the High."

Tedric went to his knees. "I thank you, sire. Have I your backing in wiping out what is left of Sarpedion's power?"

"If you will support the Throne with the strength I so clearly see is to be yours, I will back you, with the full power of the Throne, in anything you wish to do."

"Of course I will support you, sire, as long as I live and with all that in me lies. Since time first was my blood has been vassal to yours, and ever will be. My brain, my liver, and my heart are yours."

"I thank you, Lord Tedric. Proceed."

Tedric snapped to his feet. His sword flashed high in air. His heavy voice rang out.

"People of Lomarr, listen to a herald of the Throne! Sarpedion is dead; Llosir lives. Human sacrifice—yes, all sacrifice except the one I am about to perform, of Sarpedion himself to Llosir—is done. That is and will be the law. To that end there will be no more priests, but a priestess only. I speak as herald for the Throne of Lomarr!"

He turned to the girl, still clinging to his side. "I had it first in mind, Lady Rhoann, to make you priestess, but . . ."

"Not I!" she interrupted, vigorously. "No priestess I, Lord Tedric!"

"By Llosir's brain, girl, you're right — you've been wasted long enough!"

IN another time-track another Skandos and another Furmin, almost but not quite identical with those first so named, pored over a chronoviagram.

"The key point in time is there," the Prime Physicist said, thoughtfully, placing the point of his pencil near one jagged peak of the trace. "The key figure is Lord Tedric of Lomarr, the discoverer of the carburization of steel. He could be manipulated very easily . . . but, after all, the real catastrophe is about three

hundred eighteen years away; there is nothing alarming about the shape of the curve; and any interference with the actual physical events of the past would almost certainly prove calamitous. Over the years I have found your judgment good. What is your thought on this matter, Furmin?"

"I would say to wait, at least for a few weeks or months. Even though eight hundred twelve fails, number eight hundred fifty or number nine hundred may succeed. At very worst, we will be in the same position then as now to take the action which has for a hundred years been specifically forbidden by both Council and School."

"So be it."

THE END

Editorial

(Continued from page 5)

it. Bea looks at me, I look at her. Later she tells me the girl was supposed to be nude. St. John has given her a covering. Oh well, we'll change the story—or maybe we won't. After all, if the old master wants artistic license, who are we to deny it to him?

We leave, finally, and since we are in the neighborhood of Robert Gibson Jones, we decide to drop in on him just to say hello. Well, he isn't expecting us till January, and naturally hasn't anything ready. Nothing but twenty-eight paintings. . . .

He begins to show us a few, doling them out one at a time, with apologies for each one. We don't need any Jones paintings yet, as we still have four in the house. Bea cautioned me about the budget before we came up —so I just sit there while Bea arranges them on the carpet, down on her knees. But I watch. I can see the old itch creeping into her palms. You guessed it—some of these are just too good to let go to someone else who hasn't already spent his budget! Well, we aren't hoggish—we walk out with the whole twenty-eight and inform Mr. Jones we will be happy to let him know which ones we decide on, and return the rest.

Next on the schedule is dinner. Bea and I, loaded with paintings, barge into *The Ship*, a restaurant on Howard street where we can get a big table and spread the covers out, and we eat. But we are too anxious to hold our little voting fiesta—so we almost forget to eat. We send back half our food, settle down to coffee, and then we begin. Once we go through them, putting them either into group one or group two. Then we put group two aside, and repeat the performance on group one. This one into group one, this one into group

two. . . . Once more we repeat the performance. At last we have ten covers in group one. We do it again. Now we have five in group one (front covers), five in group two (back covers) —and a lot of groups of rejected covers stowed away. In group one is ONE cover. It delights us both. It is terrific.

The one we were planning to use in April stinks by comparison—so we decide to make a shift. We have *Myshkin,* by David V. Reed, coming up in April, the most terrific novel of the last few years—it *must* have this best cover to go with it! But we have no story to go with the cover scene. I feel Bea's eye on me. I squirm. "I'm not that good!" I exclaim. "I know!" she says, "But this time you will write the best story you ever wrote, or I will crucify you." She means it. Actually, she will. She has a half-dozen large spikes in her drawer in the office, and a big lead mallet. She will nail me to the wall if the story isn't good. Nothing counts but OTHER WORLDS, and if Ray Palmer must be draped from the woodwork to get a good story for this terrific cover, it will be done. I don't mind that so much, but the quick way she agrees with me that I'm not that good sort of annoys me.

I am writing the story now. It is called "New Moon." Chet Geier, who works on the staff of FATE, in our office, suggested the title to me when we showed him the cover next day. Chet went on with a few plot germs, and so Bea and I raced over for lunch and finished out the plot. The story is better than *Diagnosis* in this issue. But just the same, I went and hid Bea's big nails and that awful hammer. . . .

Coming in May is a story by Fritz Leiber, around a cover by Jones. Bea is responsible for that—she took one look at the cover and said we had to have Leiber do the story. A real good magazine doesn't just drift across your desk in the daily mail, you have to work for it.

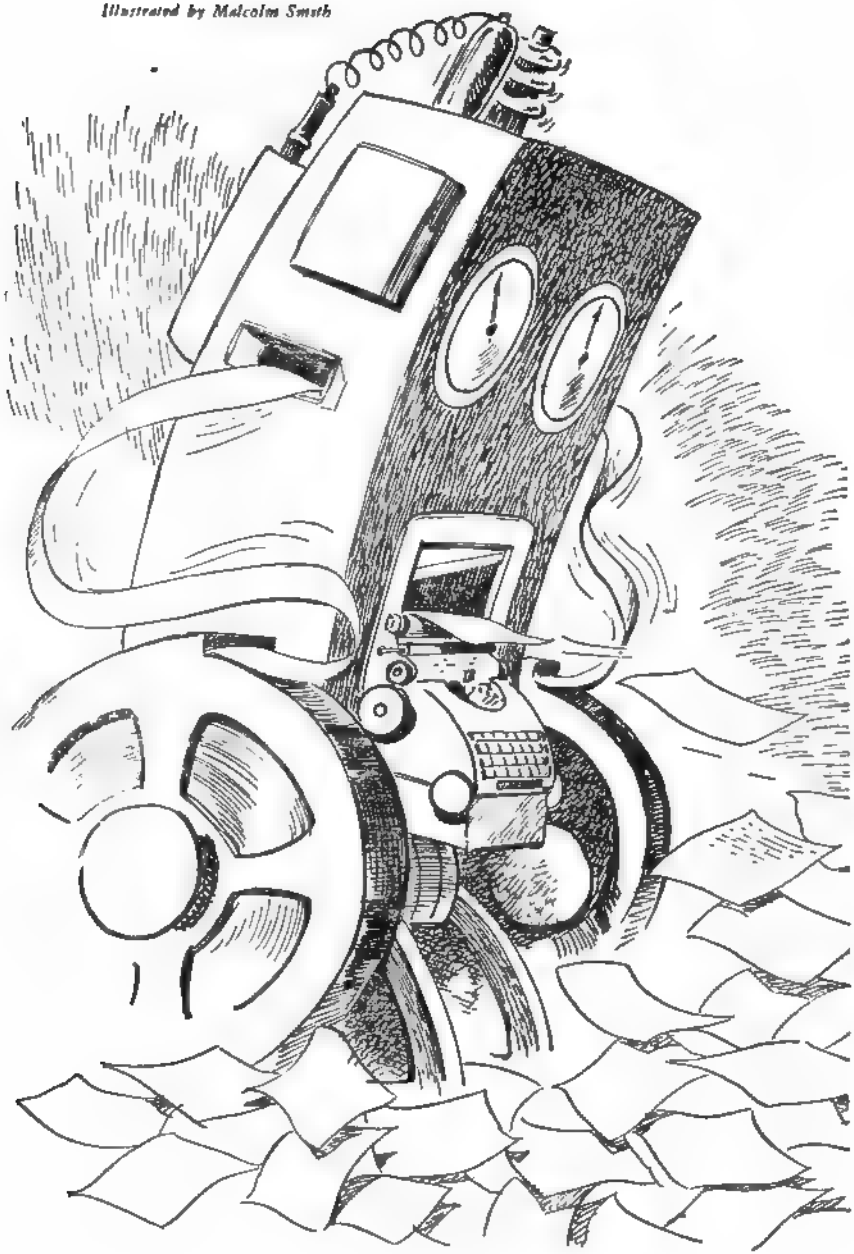
Nothing comes to you in the mail. Nothing except a once-a-year lucky strike. Like McConnell's *Game of White,* coming up in a few months. Even that wasn't an accident. McConnell won one of our little contests once, and it gave him a bit of a warm feeling for us, and when he wrote a really good one, he sent it to us.

Take *Myshkin,* for instance. Dave Reed wrote that for us when we were at Ziff-Davis, with *Amazing* We paid better than 10c a word for it. It turned out to be too long to use. Howard Browne was stuck with it. His new magazines just can't handle anything that long. So, we made a deal with him. We bought it, and we're giving it to you in a special issue. Just a five-year-old hen coming home to roost! Editing is a funny business.

This isn't the half of it. It isn't a tenth of what goes on. But it will give you an idea. Editing OTHER WORLDS is one great big exciting adventure after another, and Bea and I wouldn't give it up for the World!

—Rap

Illustrated by Malcolm Smith



Writers have long dreamed of a plot machine, but the machines in Script-Lab did much more than plot the story — they wrote it. Why bother with human writers when the machines did the job so much faster and better?

WHAT DO YOU READ?

By Boyd Ellanby

"He looked puzzled, uncertain, and then his skin reddened with anger."

HERBERT would have preferred the seclusion of a copter-taxi, but he knew he could not afford it. The Bureau paid its writers adequately, but not enough to make them comfortable in taxis. In front of his apartment house, he took the escalator to the Airway. It must have been pleasant, he thought as he stepped onto the moving sidewalk, to be a writer in the days when they were permitted to receive royalties and, presumably, to afford taxi fare.

On the rare occasions when he was forced to travel in the city, he usually tried to insulate himself from the Airway crowds by trying to construct new plots for his fiction. In his younger days, of course, he had occupied the time in reading the classics, but lately, so great was the confusion of the city, he preferred to close his eyes, and try to devise a reverse twist for one of his old stories.

Today, he found it harder than usual to concentrate. The Airway was crowded, and he had never heard the people so noisy. Up ahead half a block, there was a sharp scream. Herbert opened his eyes and peered ahead to see what had happened. Someone had been pushed through the railing of the Airway, and as his section rolled on and passed, he could see lying on the pavement below the body of a young cripple, his hands still holding a broken crutch.

Herbert shuddered. He felt sick, and closed his eyes again.

"Wonder how that happened?" said the man in front of him.

"He probably got in the way," said a girl, callously.

The man ahead made no comment, and Herbert dismissed his own puzzlement. Could he make a plot out of this incident of the crippled boy? he wondered.

He shifted to the slower track, descended the escalator, and stepped onto the street across from the Bureau of Public Entertainment. He had to wait a moment, for an ambulance was clanging down the street; then he crossed to the stone-faced building.

As he rode up the elevator, he wondered again why John had ordered him to come to lunch. He realized that he was no longer a young man, but he certainly did not feel ready to be pensioned. And in the last year he had actually written more fiction than in any other year of his life. Very little of it had been used, for some reason, but story for story he thought it matched any of his previous output.

Ludwig received him with little ceremony. "Sit down, Herbert. It was good of you to come. Miss Dodson," he called through the intercom, "this is strictly off the air. Nothing is to be recorded. Is that clear?"

"Well, John," said Carre. "You're looking harassed, if I may say so. Are they working you too hard? Or are you just faced with the unpleasant job of firing an old friend? I realize, of course, that AFE aren't using much of my stuff just now."

Ludwig smiled unhappily and shook his head. "I'm not planning to fire you, Herbert. But you know, of

course, that you're in the same boat with the other Writers, and that boat is in choppy waters. Frankly, I'm not very happy about the situation. The five-year experimental period is coming to an end. This Bureau has the job of providing entertainment, and that includes, among many other categories, literature. Books, articles, and stories. And I'm faced with a difficult decision: shall we employ Writers, or use Script-Lab? You are only one of the many people we support, of course, and both you and Script-Lab furnish material to Adult Fiction, Earth, who distribute it as they see fit."

Herbert Carre nibbled at his graying moustache. "I know. And for the last year, for some reason, AFE has not seen fit to use much of my stuff. And yet it's no different. I write just the same sort of thing I always did."

"Tastes change, Herbert. Script-Lab reports that the public seem to prefer the machine-made stories. I have a week to make a definite decision, and I'm particularly anxious to finish the job because I've been asked to transfer, at the earliest possible moment, to the Bureau of Public Safety. The Committee are inclined, on the whole, to favor the enlarging of Script-Lab, and transferring all the Writers to some other department."

"Great Gamma! You mean *all* literature will be machine-made from now on?"

"Don't get excited, Herb! That's what I've got to decide. But if they can really write it just as well, why not? You remember Hartridge, don't you? Class behind me at college, majored in electronics? He's in charge of the machine experiment and he's about convinced us that his machines can turn out manuscripts at lower cost, more rapidly and of better quality than you Writers can. And he says the public like his product better. Have you see any of it?"

"No," said Carre, "I don't know that I have. You know I never read anything but the classics, for pleasure; nothing later than Thackeray, or, at the latest, James Joyce. What principle do they work on?"

"I'm not an electronics man. Hartridge tells me they are specially sensitive blocks of tubes, and that memory, including all the basic plots of fiction, and all the basic varieties of dialog have been built into them."

Carre shuddered. "I will never believe, in the face of any evidence, that machines can take the place of human writers. What machine could have written 'Alice'?"

"Calm down, Herbert. I want your help. I haven't followed developments since the days of the early electronic computers, and I haven't time for studying them now. And, unfortunately, I never read modern fiction any more—no time for anything but official reports. Now I've always respected your judgment. I want your opinion of the adequacy of the material put out by Script-Lab."

"Have you forgotten," said Carre, "that I am a Writer? Aren't you afraid of a biased report?"

"Not from you. I need a competent judge. And if you are forced to bring in a favorable report, you know I'd find you a place in some other field. I might even get you a pension."

"I hope not. Not yet."

"Go over and see Hartridge, look over his machines, and bring me a critical estimate of the quality of their work—not just literary quality, of course; we're interested also in entertainment value. Don't be prejudiced. I imagine you'd be the last to deny that writing can be damned hard work."

"You're right," said Carre. "I would be the last person to deny it. Somehow, I've always liked the work, but if the machines can really take our place, I will try to bow out gracefully."

ONCE again Carre took the escalator to the Airway and moved across the city. He tried to think of fiction plots, but he could not control his mind. He was worried. The people standing near him were quarreling, their shrill voices hurt his ears, and the crowd was so dense that he could not move away.

Age, he feared, was making him irritable. As he approached his station, he pushed towards the escalator. He brushed against a woman who was reading a plastibacked book. She looked up, frowned, and then stamped viciously on his extended foot. Half-stunned with pain and amazement, Herbert managed to get to the escalator, went down, and limped slowly through the doorway of Computer House. What had possessed the woman? he wondered. He'd barely brushed her sleeve, in passing.

He stood before the door labelled "Manuscript Laboratory: Dr. Philip Hartridge," and pushed the button. The door opened, but two husky guards with pistols in hand blocked his entrance.

"Your name, please, and your business?"

Herbert fought a tendency to stammer. His foot still hurt him, he had developed a headache, and he felt bewildered.

"I just want—My name is Herbert Carre and I want to see Dr. Hartridge. Why, we've known each other for years!"

"Identification, please?"

They examined his identity card and his Bureau papers, and nodded. Then one returned his pistol to its holster and approached him.

"Just as a formality, if you please. Dr. Hartridge apologizes for this." He ran his hands over Herbert's shabby blouse and trousers, then stepped back.

"That's all, Mr. Carre," he said. "You can go in." They preceded him into the reception room, advanced to the rear wall and pushed a series of buttons in a complex pattern. A double door, made of metal instead of the innocent oak it had seemed to be, slowly swung open.

Philip Hartridge rose from his desk and extended his hand.

"Awfully good to see you, Carre," he said. "It must have been nearly

ten years. Sorry you've never come over to see us sooner. We're very proud of Script-Lab. How are things?"

"Not bad," said Herbert. "I'm still feeling overwhelmed by the elaborate protective system you have here. What explains the body-guards? I didn't suppose this laboratory was classified."

Hartridge leaned back in his chair. "It's not classified. Those men are here to protect me from possible violence."

"Violence? Great Gamma, do you mean personal threats?"

"Yes. Only last week, my 'coptor exploded a few minutes after I started the motor. By a lucky chance, I had gone back to the house to get my brief-case. But someone had certainly tried to kill me."

"Why on earth, Hartridge, should some one—"

"It might be one of several people," he said. "But I think it's my brother Ben. He would, of course, like to have my share of the money our father left us. But I'll take care he doesn't get it." He grinned, and patted his hip. "It's rather more likely to be the other way around. But we won't waste time in trivialities, Carre. Ludwig called me. I know you want to see our set-up here. Come in and see the machines."

They walked through another set of double doors and into the Laboratory.

The noise was deafening. Twenty enormous machines sat in the room. Each was contained in a dull plastic case, and the control panels were a maze of dials, buttons, and red and green indicator lights. An electric typewriter was connected to and operated by each machine, and through each typewriter ran an endless roll of paper, which emerged to be cut off into eleven-inch lengths by automatic knives.

"How do you stand the noise?" asked Carre. "Why don't you use Silent Typers?"

"Oh, the machines don't mind the noise. Silent Typers would be an unnecessary expense, and as a matter of fact, I've come to like the sound. It's soothing, after a time."

Carre strolled slowly, rather mournfully, from one monster to another, glancing at the emerging manuscripts.

"The rate of output," said Hartridge, "is not less than a hundred words a minute, and they never have to stop to look up their facts, or to struggle with a balky plot. Can you do as well?"

"I wish I could," said Carre. "I know so little about electronics. Do the machines use much current?"

"No, that's another of their virtues, they're very economical. The tubes are so efficient that all twenty machines are run from this one source, right here—Don't touch it! It's not ordinary house current, you know. We start with eight thousand volts,—it saves on metal and transformers."

Herbert found it hard to think against the clatter of the typewriters. "I'm ashamed to admit," he said,

"that I feel a kind of envy, they seem to compose with such ease."

. Hartridge laughed. "No trouble at all! I tell you, my pretty typewriters are going to put you out of business. You can see for yourself, Carre, that there's no need for you human writers. We are doing a perfect job here, and we could supply all the material—novels, stories, fact articles, biographies—that the country could read. AFE has been using more and more of our scripts, as you probably know."

"I know."

"I can't say exactly why it is, but we do seem to be able to hit the public taste better than you Writers." He reached over and patted one of the plastic cases, as though it had been an affectionate dog.

"Do your machines do nothing but write new material?" asked Carre, as he strolled on.

"That depends on the demand. Sometimes we have a call for some out-of-print item, or some work which is so hard to get hold of that we simply have the machines re-do it. After Number Twelve, here, produced the entire English translation of 'War and Peace' without a single semantic error, we were not afraid to trust them with anything. As a matter of fact, we've got Number Eight re-writing some nineteenth century items that have not been available for years—things that were destroyed or banned during the Atomic Wars, but which the present government finds acceptable. Would you like to see?"

Carre stood in front of Number Eight in fascination as the metal arms hammered out the words and lines. After a moment, he frowned. "I seem to remember this! I must have read it in my early boyhood. It seems so long ago. Joan of Arc! But I don't remember its happening just this way."

"Just goes to show you can't trust your memory, Carre. You know the machines are perfectly logical, and they can't make a mistake."

"No, of course not. Odd, though." He brushed his hand over a forehead grown wet.

The knife flashed down, cut the paper, and the page fell into its basket. Hartridge picked it up.

"Would you like this sheet, as a memento? Number Eight can easily re-do it."

"Thank you."

"And is there anything else I can show you? I don't mind admitting I'm very proud of my machines."

"Well," said Carre, "perhaps you might let me have some of your current manuscripts, just for tonight? I can make a comparative study, for Ludwig, and return them sometime tomorrow."

"Nothing easier." He assembled a bundle of stapled sheets and put them in a box, and then rang for the guards, to show him out.

"Take care of yourself, Carre. See you tomorrow."

HERBERT sat, that evening, in his book-lined room, reading manuscripts. He looked more and

more puzzled, and ill at ease. He got up, after a time, to pace the room, and on a sudden impulse he left the apartment and hurried up the street.

It had grown dark outside, and he hurried. He could not stand the thought of the Airway, so he walked. He had covered nearly half a mile when, at the corner ahead, two Street-taxis approached each other at right angles. The drivers glared at each other. Neither slowed to let the other pass; they crashed, and began to burn. Carre hurried on, trying not to hear the screams of the people or the siren of the approaching ambulance. No wonder, he thought, that they need Ludwig in the Bureau of Public Safety; people were behaving so irrationally!

He climbed the steps of the City Library, and advanced to the desk.

"I should like to see files of the magazines published by Adult Fiction, Earth, if you please."

"But which magazine, sir? They publish hundreds."

"Well, as a start, let me see those which publish light fiction."

For two hours he sat in the Scholar's Room, skimming the pages of the magazines — *Sagebrush Westerns, Romance and Marriage, Pinkerton's Own, Harper's,* and a dozen others. He read with concentration, and made few notes. On his way home he stopped at a news-machine and selected an armful of the current issues to take home with him. He read in his room until nearly dawn, and when he did lie down he could not sleep, or rest.

"I don't believe it," he whispered to himself. "It can't be true." And, half an hour later, "How did it happen?"

AT nine next morning he was sitting in the reception room of the Bureau of Public Entertainment, with brief-case on his knees, waiting for Ludwig. It was nearly noon before Ludwig himself arrived, and summoned his visitor.

He sat at his desk, his white hair rumpled, and nervously fingered his watch chain as Carre took the chair opposite.

"Sorry to keep you waiting, Herbert. The Commissioners over in Safety have a bad situation to handle, and I've been trying to advise them. I'll be glad when this writing business is straightened out, and I can give full attention to Safety. What did you think of Script-Lab?"

"Well, it's very efficient."

"I knew that," said Ludwig. "Machines are built to be efficient. But what do you think of their output? How does it compare with the work of the Writers?"

Carre cleared his throat. "John, don't you read the magazines any more?"

"No. No time. Do you?"

"I haven't, until yesterday. I read them, all night. I hardly know how to express myself. John, something is wrong with the machines."

"Nonsense! There can't be anything wrong with them. They're fed the plots, fed the variations, and then

with perfect logic they create their stories. You're not an electronics expert, you know."

Carre stared at the floor. Ludwig sighed.

"I'm sorry, Herbert. I'm just too tired to be decently courteous. But what I wanted from you, after all, was a literary evaluation and not a scientific one."

"I express myself so badly. There's something wrong, something I can't exactly define, with what they write."

Ludwig looked exasperated. "But *what*, man? Be concrete."

"I'll try. Here's a short story that was made yesterday. Glance over it, please, and tell me how it strikes you."

Ludwig read through the manuscript with his accustomed rapidity. "I don't see anything particularly wrong about it," he said. "Murder mysteries have never been to my taste, and I don't know that I exactly approve of the hero's killing his benefactress with an undetectable poison, and then inheriting her fortune and marrying her niece. Undetectable poisons are all nonsense, anyway."

"The story doesn't seem to you—unhealthy?"

"I don't know what you're getting at! It's on the grim side, I suppose, but isn't most modern fiction a little grim? How about your own stuff?"

"I think there's a difference. I know I've written a few mysteries, and even some tragic stories, but I don't believe I've ever written anything exactly like this. And this is typical. They're doing reprints, too, of books that were destroyed or lost during the Atomic Wars. Do you remember Joan of Arc? Mark Twain's version? Here is a page from Script-Lab's manuscript."

Ludwig took the sheet and read aloud: "By-and-by a frantic man in priest's garb came wailing and lamenting and tore through the crowd and the barrier of soldiers and flung himself on his knees by Joan's cart and put up his hands in supplication, crying out—

' "O, forgive, forgive!"

'It was Loyseleur!

'And Joan's heart knew nothing of forgiveness, nothing of compassion, nothing of pity for all that suffer and have been offensive—' "

Ludwig looked up with a frown. "That's odd. It's been so long since I saw that book—I was only a boy—but that isn't just the way I remember it."

"That's what Script-Lab is writing."

"But the machines don't—"

"I know. They don't make mistakes."

The buzz of the visi-sonor interrupted them, and the Commissioner of Public Safety spoke from the screen.

"For heaven's sake, Ludwig, shelve the book-business and get over here. We've had a rash of robberies with violence, a dozen bad street accidents, and two suspicious deaths of diabetics in coma. We need help."

Ludwig was already reaching for

his brief case. "Right away," he said, and flicked the switch.

"John!" Carre begged, "This book matter is serious. You can't just drop it! Come with me to Hartridge's lab and see for yourself!"

"I can't. No time. You heard the Commissioner."

"Tomorrow morning?"

"Can't make it. Have to go to a funeral. A niece of mine who died suddenly of cancer. Poor girl. We thought she was doing so well, too, with the hormone injections. Not that her husband will break his heart, from what I know of the scoundrel."

Carre followed him towards the door. "Then make it tomorrow afternoon! It's vital!"

Ludwig pulled out his watch, and thought for a second. "All right. Meet you there tomorrow at three." The door slammed behind him.

THEY followed the guards through the chrome steel doors into the room with the machines. All twenty typewriters were hammering out their hundred words a minute.

"It is an honor to have a visit from you, Commissioner Ludwig," said Hartridge. "We're very proud of Script-Lab. You'll agree, I know, that the experiment has been eminently successful. Tough on you, of course, Carre. But you Writers can always land on your feet."

"The decision has not yet been made," said Ludwig. "Now to business." He pulled a chair up to the desk, opened his brief case, and took out some papers.

"Before I examine the machines, I'd like to check with you the facts and figures that Carre has compiled for me. In 1971, the first year of the experiment, only ten per cent of Script-Lab's output of stories, books, and articles was accepted by Adult Fiction, Earth. Right?"

"Right," said Hartridge. "But that was our worst year. Since then—"

Ludwig held up his hand. "In the second year, you supplied thirty-five per cent of the needs of AFE. Check?"

"Check."

"In the two years following you supplied seventy-five per cent, and in 1976, this year you are supplying about ninety per cent of all published matter, with the Writers supplying only ten per cent. Correct?"

"Correct. A wonderful record, Commissioner."

Ludwig turned to another sheet of data. "As I understand it, you feed into the machines memories, basic plots, factual data, conversational variants, and they do the rest?"

"That's right. We give them the material, and they create with perfect rationality. I myself read nearly everything they make, and even I am amazed at their craftsmanship. And they are so efficient, and write so swiftly!"

"Speed is no doubt a desirable feature," said Ludwig.

"But not the only one!" said Carre.

Hartridge smiled. "Professional jealously is warping your judgment, old man. It may be hard to take, but you Writers have nothing to give

the world, anymore, that machines can't."

Ludwig turned his back and surveyed the room. "I would like to see, now, some of your productions."

Hartridge beamed. "As a matter of fact, I have something that ought to interest you, particularly. Just follow me, gentlemen. Here, by the way, is our power source. Note how simple and efficient the circuit design is. Ah here we are. Knowing that you were making us a visit today, I gave to Number Seven, here, the necessary data for creating your own monologue on 'Our Duties to the Aged. That was your doctoral thesis, I believe?"

"But that's out of print! I haven't seen a copy myself in years!"

"To Script-Lab, that is unimportant. Feed it the data, the basic premises, and it will do the rest. Would you like to see?"

The three men crowded around Number Seven, and watched the emergence of paper from the typewriter as the keys tapped the words into lines, and the carriage shifted. Ludwig, at first, showed only the pleasure which any writer feels on re-reading a good piece of work. Gradually, his face changed. He looked puzzled, uncertain, and then his skin reddened with anger.

The automatic knife chopped down and severed the completed page. Ludwig scooped it up from the basket and read the page a second time. He raised his eyes to meet the tense gaze of Carre.

"Is this what you were trying to tell me, Herbert?"

"That sort of thing. Yes."

"Is something wrong, Commissioner?" said Hartridge. "I thought you'd be pleased."

"Pleased? But this is something I never wrote!"

"But you *must* have written it," said Hartridge. "Or are you just trying to sabotage my project with a deliberate misstatement?"

"Read it!" said Ludwig. "Read that paragraph outloud."

" 'Our duties to the aged,' " read Hartridge, " 'are closely bound to our duties to ourselves. When the old become infirm, they should be quietly helped out of a contented existence. After all, the only measure of the value of aged men and women should be their present usefulness to society!"

He looked up from the page. "I don't see why you're so unwilling to admit your authorship, Commissioner. There's nothing wrong with this."

"Only," Ludwig said softly, "I didn't write it. What the monologue actually said was something like this: 'Our duties to the aged are closely bound to our duties to ourselves. When the old become infirm, they should be quietly helped to a contented existence. After all, the only measure of the value of aged men and women should be their past usefulness to our society.'

"You've made your point, Carre," he went on. "If this sort of perverted advice has been fed to our people the last few years, it's no wonder we're having a wave of crimes. Be selfish!

It pays. An eye for an eye! Poison the old man! Nobody will ever know and you'll get his money!"

Hartridge was still studying the typescript, and he spoke with defiance. "Number Seven's excerpt from your monologue seems perfectly sensible to me," he said. "For some reason of your own you must be lying about it. Why, the version you say you remember is utterly illogical!"

"Of course it's illogical!" said Carre. "Don't you see—"

"Of course it's illogical!" shouted Ludwig. "It was illogical for Joan to forgive her tormentor. It's illogical to take care of invalids. It's illogical to forget an injury. But it's human! How on earth is society to exist if it feels only the rational emotions? You, yourself, Hartridge, have been corrupted by reading the work of Script-Lab, and you no longer have any sense of human charity. These monsters have been undermining our whole life, because the only motivation they were provided was the most dangerous and ugly thing possible in the world of human beings—pure logic!"

As he shouted, he tumbled at his watch, unhooked the long gold chain, and with a sudden lunge, flung it across the bus bars which supplied the current to the machines.

There was a blinding flash, a hiss, and the eternal clacking of the typewriters was replaced by silence.

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personals

Am writing "A History of Science Fiction" with a well-known pro-editor and need to complete by collection for reference. Want all fanzines ever published. Need information on stories "The Betelgeuse Express" and "Within the Earth-Atom" supposed to have been published 30 years ago. Need copies of Black Cat Magazine, first Weird Tales, large size Thrill Book, January 1930 Astounding Stories and the two issues of Miracle Science and Fantasy Stories. Mint copies only of Astounding & Miracle as we want to reproduce the covers. Larry B. Farsace, 187 North Union St., Rochester 5, N. Y. . . . *Have Galaxy, Dec. '51 & June '52; Galaxy Novels* 3, 8 & 9; *aSF, Jan, June, July* '52; *If, July* '52; *OW, July* '52; *PBs "The Illustrated Man" and "Day of the Triffids" all in fair to very good condition. Want to trade of OW* 1, 2, 3, 4, 5, 8, 10, 11, 15 & 17; *aSF, Jan, Mar, June, July & Aug* '50 *or pre* '50 *aSF. William Poley Jr., 8322 S. Sangamon, Chicago* 20, *Ill.* . . . For Sale: All stf & fantasy mags from 1940; many PBs; old and rare comic books including stf; many Big-Little Books; juvenile hard cover books. If I don't have what you want, possibly I can get it for you if it's in my line. Send wants to Ron Smith, 332 E. Date St., Oxnard, Calif . . . *Would like to get in touch with fans in Kingston, Poughkeepsie, New York City, Andover, Lawrence or Boston, and with fan clubs, particularly those interested in science or writing stf. Am* 16 *years old. Billy Berkowitz, Woodstock, N. Y.* . . . For sale: Fate—15, 18, 19, 21, 22, 23, 25 thru 29; Avon S-F Reader—1 & 2; Avon Fantasy Reader—15 & 16; Worlds Beyond—1, 2 & 3; Marvel—Vol 3, Nos. 3, 4 & 5; Science Fiction Galaxy (Perma Book); Mag of F & S-F—V. 1, No. 5, V. 2, Nos. 1, 3, 4 & 4; V. 3, Nos. 2 & 3. Will sell for 35c each or 3/$1.00. Judith Schandelmeier, 720 Kishwaukee St., Rockford, Ill . . . *PROJECT FANCLUB will help any fanclub getting started or any club having trouble. Successful clubs can do a lot of good by filling out a questionnaire on your club. You'll get a free copy of "How to Form a Science-Fiction Fanclub" plus egoboo, plus the chance to help other fan groups. Lend a hand to PROJECT FANCLUB. Dick Clarkson,* 410 *Kensington Rd., Baltimore* 29, *Md., or Orv Mosher III,* 1728 *Mayfair, Emporia, Kansas for full information* . . . Wanted: aSF—Jan, Oct & Dec '50, all '49 and all '48; OW—first five issues; If—all issues;

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(Concluded on page 157)

ONE of the most important phases of what will come to be known as The Great Change will be the migrations which will take place from large cities. As the third quarter of the Twentieth Century proceeds, this migratory movement will become more and more evident, and will eventually assume the proportions of a gigantic mass movement which will have very significant effects upon the economy of the country, and upon the mode and effectiveness of government.

At first, the migration will be minor, and will become evident only when the census reveals that the rural and suburban population has taken an unexpected jump. Actually, these first migrators will consist of people whose employment remains in the cities, but whose place of residence, due to the facility of transportation, will be situated in the small communities surrounding the big cities, and strung out along the highways until the new observation concerning "Sunday driving" will not concern the landscape-obscuring qualities of billboards, but of dwellings. Travel for hundreds of miles will be along what amounts to a single "main street."

However, as the migratory trend continues, it will raise a tremendous taxation problem. Large cities, robbed of a great portion of their tax income, will be unable to finance necessary improvements, such as roads and superways. Transportation will become a hopeless muddle, and the very facility that made the migration possible in the first place will defeat it in the end.

Due to the growth of suburban communities, they will find themselves eventually absorbed into the city, until the result is an even vaster city, a gigantic monstrosity which can no longer sustain the network of its vital arteries. Tax-raising laws will be passed which will take in the highways between cities, each city reaching out as far as it can before encountering the advancing tentacles of its nearest neighbor, declaring wide strips of land on each side of the highway as "city territory" and subject to real estate taxes.

At this point the real migration will begin, which will result in a division of the populace into two large

masses of equal weight, but of opposite interests. Legalistic warfare between the "outlanders" and the "urbanites" will eventually terminate in actual violence. More and more will the "outlanders" set up self-sufficient communities based on exchange and barter and non-money economies. This setup, in sheer contrast with the mode of business of the city dweller will make cooperation between them impossible. The cities will take large areas surrounding them, convert them into highly technical and scientific and mechanized farms. This will drive the "outlanders" still further into the areas which will become known to the city dwellers as "wastelands" and the result will be vast "hibernating" areas constituting the cities, with no traffic outside the urban area, and thousands of small communities, connected by railroads and truck lines for the sole purpose of the transportation of foodstuffs and industrial products. The day of the "joy-riding American" will come to an end. There will be no roads available to him.

Air travel will completely supplant the ground methods for means devoted to pleasure and sight-seeing. Yet, city dwellers will not take to the countryside for vacations as of yore, but will instead go to pleasure camps maintained by the cities for profit. These camps will be located in nearby areas too unsuited to agriculture to be of any profitable use in that respect. Those hardy citizens who venture into the "uninhabited areas" will be risking actual personal danger and even attack from persons whose rural refuge it is.

It will be this migratory factor, more than anything else, which will smash the economy of the nation as a whole, and result in the eventual downfall of the government, and following it, of the functions of the city itself. Revolution will result, and the cities will go up in smoke.

THE END

"Sometimes I think they're carrying this multiple stage rocket idea too far."

LETTERS

CLARK PUBLISHING COMPANY, 806 DEMPSTER STREET, EVANSTON, ILLINOIS

Margaret Grumman

Having just finished reading "The Scarpein of Delta Sira" and "Fish Story" in the November issue of *Other Worlds*, it strikes me that I have met the characters in both these stories before. Surely I remember the "old and famous university" and the "old and evil professor"—*loved* that man's style of writing—as well as G. H. Irwin's most fascinating Venusians.

But the question is: where? If, as I suspect, these people are the subjects of a series of stories, and I don't know about it, then my reading has been remiss, and I shall have to catch up. Please supply me with the details and I shall be most happy to send for any back issues I have missed.

Science-fiction seems to be the only form of fiction I ever bother to read these days, and I have just discovered that in missing OW I have done myself no favor. I don't have as much time to read as I would like—a poor excuse at best, but the only one I will allow myself as to why I have missed your magazine.

430 So. Union Ave.
Los Angeles 17, Calif.

Yes, you've seen the old and evil professor in OW in previous issues. And Irwin's Venusians also, and in the old Amazing Stories. *Unfortunately we're all sold out of the first 9 or ten (maybe it's more now) issues of OW and you can't get 'em.—Rap.*

Barbara Blizard

The November issue of *Other Worlds* is the first one I ever bought or read. The only reason I got it was because it looked interesting and I couldn't find anything else I liked better. I am not sorry. In fact I am enclosing my subscription so I won't miss out on the rest of the serial that started in this issue.

I liked "The Scarpein of Delta Sira" the best. The rest of the stories were good. "Fish Story" I didn't like, neither do I like the feature "The Man from Tomorrow." I see from the letters you have received I am not the only one.

If the front cover was an accident, you had better keep on having them. It is the only reason I bought your magazine.

(no address)

Well, we still don't know if our "accident" front cover was a good idea—as we'll have to wait to see if sales upped or downed! But glad it hit you!—Rap.

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By

KENNETH ARNOLD and RAY PALMER

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Joseph C. Belotte

QUOTE "Your word is our command." UNQUOTE. The previous statement was taken from one of your *Other Worlds* editorials. I can't recall which one just now but I'm sure it's there. My word: "Cartier." Now go to work.

To explain: In the April '52 issue you did up Hannes Bok for the "People Who Make Other Worlds" column. It was good. Hannes Bok is good. But do you happen to recall an artist who did a whole issue for you? The September '51 issue? Edd Cartier. Don't you think he deserves a little mention (at least seven or eight pages) for his work in that mag and a number of other issues he appeared in? I'm sorry I asked that. I'll take it back. Edd Cartier DOES deserve mention in the "People Who Make, etc." And SOON. You now have my word, so go at it.

Being a regular reader of *Other Worlds* I have learned that you don't drop things you can't do, or not hear words that are hard to obey so I will be expecting that article on Edd Cartier. DON'T disappoint me.

2705 15th Street
Troy, New York

Not only have we got Cartier illustrations for the future, but we'll give you his life story too.

—Rap.

Robert Coulson

I am writing to comment on the Jones cover for the November OW. It is the finest stf cover of the year, and one of the greatest of all time. Your back cover by St. John was good, although I didn't think it deserved the accolade you gave it in your editorial. I bought the issue simply to get the cover, as I am not a steady reader of OW.

Your magazine is now, in appearance, equal or superior to any other stfzine on the market. Unfortunately, its contents are not. LOST CONTINENTS was good; you deserve praise for getting the serial rights, I think more books of that type should be serialized in stfzines. The SCARPEIN OF DELTA SIRA was well-written. It just didn't happen to strike my personal taste. Was it a sequel to an earlier story? It sounded like it. FISH STORY was fair, but Caravan tried too hard for his humor. ALTERNATE UNIVERSE was ruined by the silly ending. DAY OF DEPARTURE read like second-rate fan fiction. BEYOND THE BARRIER is absurdly overdrawn. Have you ever thought that a lot of the fans' hostility toward Shaver is due to the fact that the man just can't write? Now that your appearance is tops, I'm eagerly awaiting a similar change in the contents.

Congratulations on your stand on religion in the editorial.

Silver Lake, Ind.

Okay, brother. You asked for a change, you're going to get it. And if, one year from now, you haven't read some of the best stf you've ever read, right between the covers of OW, you will just be a mighty lonely guy.

As for our stand on religion, did we take one? If so, what was it? Seems to us we shied off on some personal opinions, which are far from a "stand." Besides, we don't believe in making stands. Look what happened to Horatio, at the bridge. He got stuck full of holes!—Rap.

Juanita Mullen

I have just finished reading the "Letters" of the November issue and I got sort of mad. How anyone in the world could say that THE SUN SMITHS or THE GOLDEN GUARDSMEN was not a good story must be completely off the beam somewhere. As I hate the suspense of waiting for serials I just get a good hold on myself and wait until I have the complete story before starting and when I got started on THE SUN SMITHS I was so wrapped up in it all I could do is hold tightly to the book and READ. The second installment was not up to the first and last but it was wonderful Mr. Shaver has won my heart.

But when you come to THE GOLDEN GUARDSMEN—WOW! What can I say but Out of This World. All the big adjectives I would like to say about it I can't spell so I'll just say it's the tops and if you can ever beat it you and OW deserve three cheers, not to mention its grand author.

OW has taken a big jump that has truly put it in other worlds. The front and back covers are beautiful and the stories have improved to a point where they can't be beat. I never did like serials but when they can give such amazing stories I am all for them. I am a true lover of sf and it may seem strange when I say that OW is the ONLY sf mag I read. But to tell the truth it is the only one I can really enjoy so why should I throw my money away on sf mags that bore me to tears.

I guess one reason I have taken such an interest in OW is because you, as its editor, make everyone feel like they belong to part of one big family. Its a real pleasure to have a copy of OW around when you feel like talking to someone because all you have to do is turn to the editorial and there you are having a devil of an argument with one RAP or helping him rake someone over the coals, (which I must say, you do beautifully).

Unlike most letter writers I have no complaints. I am very happy with each issue of OW and know I shall continue to feel the same in the future. Keep up the good work, maybe someday (in the next 2000 or so years) you'll be a millionaire.

715-S. Wash. St. No. B-5,
Alexandria, Virginia

Phooey, what's money beside words like yours!—Rap.

Ray Thompson

This afternoon I rushed down to the local newsstand to get some reading material and I noticed a new mag on the stand. On looking closer, I discovered this "new mag" to be none other than the Nov. issue of OW.

New paper, new cover style, new format, *new mag!* If that Jones cover is a mistake, then more power to him, I say! So what if it does violate every editorial taboo on the books—it's a good cover!

Speaking of covers, J. Allen St. John didn't do such a bad job on the backside.

Also, in the *new* OW is the longest novel to appear complete in *any* stf-mag since '49; "The Scarpein of Delta Sira." But how did Edd Cartier slip out of your fingers?

I hope to see many more issues as good or better than this one.

410 S. 4th St.,
Norfolk, Nebr.

Yes, it's a brand new mag, in appearance, but the same old OW. We predict that with the April issue you'll find another new set of drastic changes, mostly in cover and story improvement. We're putting on all the steam we can now, and we haven't got half the boilers lit yet! Speaking of long novels, we'd like to see anybody beat out the next issue—it's a 65,000 worder! As for Cartier, he didn't slip through our fingers, we've got him again! You'll see him shortly.
—*Rap.*

John L. Magnus, Jr.

Malc Smith's cover on the December OW is the most beautiful thing *ever* to appear on a sf mag. Not the *best* understand, but the most *beautiful.*

At a recent club meeting we discussed the various cover types and formats now being used. We decided that *we* personally liked *speculative* thinking as a cover theme as well as for the stories—as opposed to dynamic action or sex interest. BUT, we concede that cover painting with mild sex interest would be most likely to lure new readers into the field. Indeed, it seems as though that is how some of our members picked up their first mag!

We also decided that printing on the cover detracted from its general interest, and that repulsive titles plastered over the painting were more likely to repel interest than to generate it. Of course, these are our mere opinions, and you with your years of editing experience are better equipped to judge on such points, but it seems as though you have been hitting the nail right square on the proverbial head for the last few months. Your author-blurbs are very well placed on the cover, and the cover design itself is by far the best in the field. Congrats on really hitting the line *hard* . . . and please keep it up.

Get Emsh and Ashman on your interior illos, keep up the occasional appearances of Russell, de Camp, Bradbury, and Miller along with your old line (including the new writers with the fresh approach to the fine old themes) and you will have the most pleasurable magazine in the most pleasurable field.

9612 Second Avenue,
Silver Spring, Md.

This is going to be a year of "most beautiful" covers. You'll find it hard

DID OTHER WORLDS DISCOVER US FIRST?

Can Oahspe be the authentic and authorized account of the increasingly frequent visits of flying disks and space ships?

FROM the first page of OAHSPE you will find it increasingly hard to believe that Dr. John Ballou Newbrough, deceased, through whose hands this strange book was transcribed seventy years ago, actually wrote it, so different is Oahspe from all other books.

Oahspe shows an array of minds as superior to the minds of Newbrough's time as a flying saucer is superior to the engineering creations of today. On the basis of its literary merits alone, many find Oahspe powerfully convincing, and every day new *external* evidence tends to corroborate Oahspe.

Oahspe purports to have been written at the expressed order of the chief of a band of highly organized beings from other worlds, supposedly many of them older than this earth. These beings call themselves Ethereans, meaning citizens of etherea or space beyond the earth's atmosphere, and they claim not only to have discovered earth long ago, but also to have colonized it, and to have had it in their loving care and management ever since.

In Oahspe, their book, they give the history of their visits to earth, visits of their former expeditionary chiefs like Sethantes, Thor, Apollo, Sue, Osire, and many others whose names are now remembered only in legend if at all, as the names of Buddha, Brahma, Mohamet and others will become legendary in centuries to come.

In Oahspe these ethereans state quite plainly and simply what they think is good for us in this present age of atomic power and universal travel. First, they state what we should repudiate if we would escape misery. Second, what we should embrace and practice if we would be alive and happy. As one of their members states in Oahspe; "I am not come to captivate the ignorant and unlearned. I come to the wise and learned. And not to one man only but to thousands. That which I am uttering in these words in this place, I am also uttering in the souls of thousands, and I will bring them together."

You will, of course, want to examine, judge, and decide for yourself the validity of Oahspe's extensive statements. Decide for yourself just what and who Oahspe represents. And don't we all want to know who on earth is kidding who and why and how?

Oahspe comes in a blue fabrikoid binding. It is a large book of 890 pages illustrated and indexed. Five dollars will bring this Wonder Book of the Age to you postpaid. If you with it C.O.D. it will cost you five-fifty. If you are not pleased with the book send it back and money will be returned to you immediately. Order from Kosmon Press, 2208 West 11th St., Los Angeles 6, California.

to decide!—Rap.

Jim Goldfrank

I was reading in *Life* magazine this week, "The supply of good magazines and books in Korea is practically nil. Subscriptions to stateside magazines are sure-fire gift ideas."

Now I know there is an organization that sees to sending stf-zines to the fans in the armed forces overseas, but they can do only so much. For anybody who reads this, who has a fan serviceman, how about sending a subscription to OW or one of the other good science-fiction magazines?

I like your magazine, Mr. Palmer, except for your "Man From Tomorrow," which I think is a complete waste of space. It doesn't belong in a good science-fiction magazine, but more in something like *Fate,* which I haven't looked at since about the second issue . . .

How about some good fantasy? How's about some illos by Bok? How's about some *stories* by Bok? To cite only a couple of stories he's written: "The Sorceror's Ship" in Unknown and "The Blue Flamingo" in Startling.

Then too, he's completed 2 stories by Merritt, and did a good job of it.

I think your back covers are a darn sight better than your *front* covers!

Todd Union
University of Rochester
Rochester. N. Y.

Good idea! There must be at least 10,000 servicemen who'd like to get OW by mail. Why not take care of 'em? As a matter of fact, we'll contribute a buck to each 2-year sub you send in! Just say it's for a serviceman, and we'll knock the price down from six to five bucks. Maybe our competitors will feel the same way about it? How about it, you guys?

You quit reading FATE? Why! For gosh sakes, why? Maybe you better glance at some of the new copies!

Bok? Sure we got Bok. Take a gander at the back cover . . . But as for back covers being better than front, we've corrected that. Both covers are better now! Better than anything!—Rap.

Henry Moskowitz

I think the Jones cover on this (December) issue is the worst of the four that he's done for you. Each of the other three have had a *something* that this one lacks. All there is is a mess of colors and lines, meaningless. As an art director, Smith should have noticed the point. Look to the others and tell me if I'm wrong.

The Front Cover wasn't so hot, either. Not that I object to nudes, you understand. But the picture seems to be overly cluttered. Smith tried for atmosphere, I think, and missed. Furthermore, how could we frame that cover with names on it?

A suggestion: Have a larger band above and include the names, or a small band at the bottom for names.

RAP, old friend, you're slipping. Since when is *Lost Continents* a story? Odd thing, Bailey didn't have a story anywhere since the December 1951 ish of OW, until a sudden land-

slide in both OW and the new DYNAMIC SCIENCE FICTION. I'll bet that Frank Patton this time is Rog Phillips.

Gads! a female with a moustache. What next? The illos were all right but they could have been better, sharper, clearer. The Zimmerman was too dark and lost a lot by that.

The biog sketch by Nourse was welcome indeed.

Finally, keep the serials whatever else you do. I hope to see St. John illo the Tharn story when Browne gets a chance to write it. And I hope the next installment of *Beyond the Barrier* is the last; I'm waiting anxiously for the end.

Three Bridges
New Jersey

Hank, we printed your letter because it was unique. You, my friend, are the ONLY reader of OW (thus far) to dislike the December cover! As a matter of fact, we had some of your own impressions when we first saw it, and ran it with trepidation. And then came the surprise! Maybe you and I are just too much "nose to the grindstone?" Now, if the sales bear out our readers' letter reaction, we'll have to sit down and do some deep thinking! As for Jones, we are going to show you some work of his that will have you diving off the three bridges your town is named after, merely in apology for ever having criticised him. I framed my cover by simply using the kids' paint box and painting them out with the background color. It worked swell. No, Lost Continents isn't a story. But it isn't a special feature either. We didn't want to clutter up the contents page with a meaningless attempt at classification. No, Frank Patton isn't Rog Phillips this time. I won't tell you who he is, because you'll slash your throat! How do you mean you are waiting anxiously for the end of Beyond The Barrier? We could take that either of two ways—and we prefer to take it that you can hardly wait because of suspense!—Rap.

Ria C. Neerose

I have been reading the gripes in the readers' column and wonder what some people expect. I have the December copy of OW laying beside me. It was in the mailbox when I got home from work today. I haven't even opened the cover to glance at the inside, but I want to say that this copy as well as all the copies that came through the mail are in perfect condition. I prefer my mail copies to the well thumbed copies I had to buy at the newsstands.

However I don't save my copies. Not enough room in the house. But I do something that brings more happiness to people. When I am finished I send my copies over to a friend of mine in Angus, Scotland, who writes S.F. for English readers. After he is finished, he turns them over to the local hospital, where they are read as long as it holds together. The minister of Carnoustie recently made the remark that he is three times as welcome since he has been bringing the magazines with him. Knowing you

quite well I believe that the plan meets with your approval.

I like the Man of Tomorrow section and am deep in Lost Continents. I can read Shaver now, where I couldn't before. But I won't list story by story. Sufficient to say that OW is the only magazine that I subscribe for. The rest I chance picking up at the newsstand. That should tell you where you stand with me.

6558 S. Cottage Grove
Chicago 37, Ill.

We're getting very few complaints lately of copies in bad condition in the mail. It seems we've pretty well licked the problem. In fact, we ourselves get two copies in the mail each month, and they are always in perfect shape.—Rap.

George Stevens

I have just finished the latest OW and really got a kick out of it. Your cover was the best on the stands with the exception of The Mag of F and SF, which by the by, was the best cover I've ever seen. Beat that! Your back cover was good but not the type I like.

Your best story was the "article" by de Camp. It's excellent. Second was "The Scarpein of Delta Sira," which I believe, is your work. What's wrong, did you go bashful? Shaver's story was a close third. I see his "Sathanas" and "Lemuria" characters are back.

In your letter column, Moskowitz' letter was the best, but I disagree with him on a couple of things. In-

LOST CONTINENTS

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troducing the Shaver Mystery was *not* a mistake. It was good, but I'm glad you stopped it when you did. Also phooey on Browne's Tharn Story. It's too much like Burroughs' writing, so why not get some of his?

Your editorial as usual was quite good (gooey-gooey), but that seems to be a habit.

In your Man From Tomorrow you refer back to March. Let me refer you back further. When you were editing AS, you made several predictions in the April 1947 ish. You predicted visitors from space within a few years. K. Arnold first reported Flying Saucers on June 25, 1947. You also predicted a major war (not a world war) within 20 years. That's Korea.

Before I close, I'd like to ask a few questions.

What happened to Robert N. Webster? He just faded away after the second issue.

This one may stump you. Who was Bob McKenna, the guy who used to write with Shaver?

Does A. R—for Ray— Steber have a brother like Rap said in a certain article, and if so, does he write stf?

1608 W. 28th Avenue
Vancouver 9, B. C.

No, I didn't write Scarpein! G. H. Irwin did, and you never can tell who he is, because he's a house name. Me, bashful! As for getting Burroughs, we might—in FATE. You see, the old master is dead now. So it's really up to Browne to keep up the old master's type of story! As for our predictions, hush yo' mouf! Want it to get noised around we actually can predict the future? Webster? He's still editing FATE for us. Bob McKenna is a guy in Pittsburgh, radio announcer, who collaborated with Shaver. Yes, Steber had a brother. But he got killed in Luxembourg in the Big Push.—Rap.

THE END

"Ray gun? I thought you said SPRAY gun."

PERSONALS *(Concluded from page 144)*

on receipt of 10c *to cover cost. Need "The Lad and The Lion" and all issues of The Amtorian and Burroughs Bulletin. John F. Cook,* 21 *Hawthorne Rd., Bradford, Penna* . . . Will pay $1 each for OW Nos. 1, 2, 3 & 4. Jerry Symmonds, Box 150, Lockwood, Missouri . . . *Need subscribers and material for my fanzine Renaissance.* 10c *per copy. Suggest you send in a dime for a copy and see what type of material I want for my zine. Joseph Semenovich,* 155-07 71*st Ave, Flushing* 67, *NY* . . . Any stf and fantasy fans in Mass. who are interested in organizing a state-wide fan club please get in touch with Maurice Lubin, 14 Jones St, Worcester 4, Mass. . . . *Gerry de la Ree,* 277 *Howland Ave, River Edge, N. J. has copies of most fantasy mags since* '46 *for sale; also some pre* '46 *copies and a couple hundred stf books and pbs. Write for free list. He also wants to buy collections of stf books and mags* . . . Have books by Frank Kerby, A. J. Cronin, Margaret Irwin, Frank G. Slaughter and others for sale. Write for list. Alfred Guillory Jr, Box 83, Chataignier, La . . . *Richard Field,* 2263 *Commonwealth Ave, St. Paul* 8, *Minn. wants pre* '38 *AS and Wonders in excellent condition only. Please send list and state price.*

PUBLICITY STUNT *(Concluded from page 101)*

are thinking of coming to Venus, it might be wise to see our picture first. It will give you a little more rounded view of a place that is a little short of Heaven . . . about a couple of billion miles short of it.

And, if you are thinking of coming to Venus, you had better take one other thing into consideration — the promise Molock made to Shad Brisbee before the Venusian would concede defeat in dancing. Shad made Molock promise to teach him this new and wonderful form of dancing that humans knew.

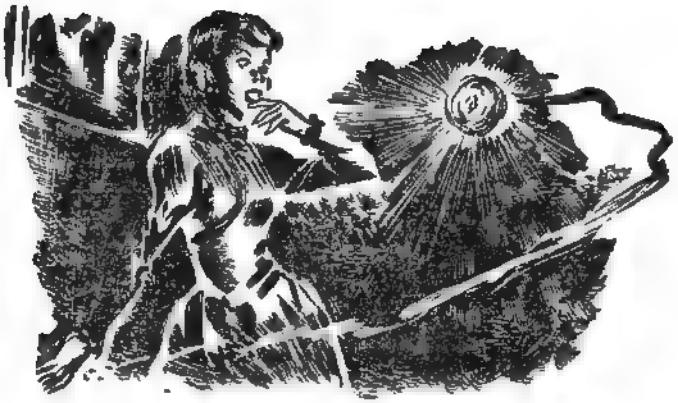
Molock spent two weeks doing exactly that, which accounts for the enthusiastic greeting Mr. Cooper got from one of the tame Venusians.

I understand this form of "dancing" is spreading like wild fire over the Veiled Planet.

If you are thinking of going to Venus, you had better take in consideration not only the fog flies, the forty foot boa constrictors, the blue tigers, but the fact that every blasted Venusian native now considers himself an expert at "human dancing" and spends most of his spare time looking for humans to practice with.

Unless you're fully prepared to "dance" with these Venusians, you had better think twice before deciding to settle on this Eden in the Sky.

THE END



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- The fictioneers dream of future ages when men are telepaths. We prove they are telepaths today!

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The People Who Make OTHER WORLDS

No. 11—EDWARD E. SMITH *(Continued from page 2)*

Jenny, but chemists were too scarce. (Or were Jennies too valuable?) So they gave me a commission in the reserve and loaned me to Herbert Hoover — for the duration, as it turned out.

In pursuit of my M.S. and Ph.D. degrees I worked under Charles E. Munroe, probably the greatest high-explosives man yet to live. Got 'em —the M.S. in 1917, the Ph.D. in 1918; both from George Washington University.

Chief Chemist F. W. Stock & Sons, Hillsdale, Mich., from 1919 to 1936; where I developed a line of fully-prepared cereal mixes; the most important of which turned out to be donut mixes. From 1936 to 1941 I was production manager for the Dawn Donut Co., of Jackson, Mich.

Shortly after Pearl Harbor I went to Kingsbury Ordnance Plant, La-Porte, Ind., as chemical engineer on high explosives. (I was one year over age for reinstatement of my World War One commission). Senior chemical engineer, assistant chief, chief. Late in 1943 I was made head of the Inspection Division, and early in 1944 I was fired. Most of 1944 and most of 1945 I worked in various capacities on light farm machinery and heavy tanks for Allis-Chalmers.

On Oct. 1, 1945, I came to Chicago as manager of the Cereal Mix Division of J. W. Allen & Co., which position I still hold. It's the biggest and best job I ever had. It has only one drawback — on it, unfortunately, I not only can't write stories on company time, but (since I have to concentrate my one-cylinder brain on SF in order to write SF) I can't write on my own time because the job gets in the way.

Thus, I haven't done much writing since 1945. However, I hope to do more of it from now on. For, although I am only an amateur—or at best, a semi-pro—author, I certainly do not want to become an ex-author!

THE 11th WORLD SCIENCE-FICTION CONVENTION

Bellevue Stratford Hotel, Philadelphia, Sept. 5-6-7, 1953 (Labor Day weekend)—but for all advance news and Progress Bulletins, join the Convention early! Membership: $1. Send to:

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Philadelphia 3, Pa.

OTHER WORLDS

BOOK SHELF

For the convenience of readers of OTHER WORLDS, we are listing here a number of science fiction and kindred books that can be secured directly from us. If you wish any of the following titles, address your order to OTHER WORLDS Book Shelf, 806 Dempster St., Evanston, Ill. Only prepaid orders accepted. We pay postage.

Group A—$3.00 each

1. **WHO GOES THERE?** ..... *John W. Campbell, Jr.*
2. **CLOAK OF AESIR** ..... *John W. Campbell, Jr.*
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4. **THE INCREDIBLE PLANET** ..... *John W. Campbell, Jr.*
5. **THE WHEELS OF IF** ..... *L. Sprague de Camp*
6. **DIVIDE AND RULE** ..... *L. Sprague de Camp*
7. **GENUS HOMO** ..... *P. Schuyler Miller & L. Sprague de Camp*
8. **MURDER IN MILLENNIUM VI** ..... *Curme Gray*
9. **BEYOND THE HORIZON** ..... *Robert A. Heinlein*
0. **THE MAN WHO SOLD THE MOON** ..... *Robert A. Heinlein*
1. **THE GREEN HILLS OF EARTH** ..... *Robert A. Heinlein*
12. **SIDEWISE IN TIME** ..... *Murray Leinster*
13. **SINISTER BARRIER** ..... *Eric Frank Russell*
14. **TRIPLANETARY** ..... *E. E. Smith, Ph.D.*
15. **FIRST LENSMAN** ..... *E. E. Smith, Ph.D.*
16. **GALACTIC PATROL** ..... *E. E. Smith, Ph.D.*
17. **GRAY LENSMAN** ..... *E. E. Smith, Ph.D.*
18. **SKYLARK OF VALERON** ..... *E. E. SMITH, Ph.D.*
19. **THE CRYSTAL HORDE** ..... *John Taine*
20. **MASTERS OF TIME** ..... *A. E. van Vogt*
21. **THE BRIDGE OF LIGHT** ..... *A. Hyatt Verrill*
22. **A MARTIAN ODYSSEY** ..... *Stanley G. Weinbaum*

23. THE COMETEERS ..... ***Jack Williamson***
24. DARKER THAN YOU THINK ..... ***Jack Williamson***
25. SEVEN OUT OF TIME ..... ***A. L. Zagat***

Group B — $2.75 each

26. BEYOND INFINITY ..... ***Robert Spencer Carr***
27. DREADFUL SANCTUARY ..... ***Eric Frank Russell***
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